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Organ of the Medical Association of South Africa

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CONTENTS — INHOUD

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EDITORIAL

DANGERS OF CHEMICAL WARFARE AGAINST INSECTS

The lethal agents that are being used as insecticides have already caused a few deaths in this country and many more overseas. In this *Journal* [1, 2] attention has been drawn to the dangers arising from these chemicals. Two important groups in use are the halogenated hydrocarbons, e.g. DDT and BHC, and the organic phosphorus compounds, e.g. parathion. The high toxicity of the latter group makes them unsuitable for insect control on livestock and in human beings. They are used in the protection of crops and this requires the greatest care. Mishandling in the absence of a proper advisory service, and ignorance of workers using materials of such poisonous nature, has led to injury and death. The attack made with these poisons requires that persons should be suitably protected; and since adequate washing and bathing or shower facilities should be available, mobile or permanently established washrooms or bathrooms should be in the field when large areas are being treated by sprayers on the ground. There is danger too of fruit being picked and eaten by children and others in areas that have been treated with the poison.

The widest publicity ought to be given to the danger arising from the handling and use of these modern insecticides. In this issue (p. 402) we publish a report of a symposium on health and insecticides held in Johannesburg by the Southern Transvaal Branch of the Medical Association of South Africa. This report is a synopsis only, and does not give all the details presented by the several contributors to this symposium. The matter submitted would form a useful booklet on the subject for distribution to those many individuals on farms and elsewhere who find it essential to use economic poisons. The toxic properties which

REDAKSIE

GEVARE MET DIE GEBRUIK VAN CHEMIKALIEË IN DIE VELDTOG TEEN INSEKTE

Die dodelike middels wat as insektegif gebruik word is alreeds die oorsaak van 'n paar sterfgevalle in ons land en veel meer in die buiteland. Aandag word in hierdie Tydskrif [1, 2] gevestig op die gevare aan hierdie chemikalieë verbonde. Halogeen-koolwaterstowwe, byvoorbeeld DDT en BHC en die organiese fosforverbindings byvoorbeeld parathion, is twee belangrike groepe wat gebruik word. Die hoë gif-inhoud van laasgenoemde groep maak hul ongeskik vir insektebeheer ten opsigte van mens of dier. Hul word gebruik om gesaaides te beskerm en dit vereis uiterste sorgvuldigheid. Wanneer dit verkeerd aangepak was as gevolg van gebrek aan 'n behoorlike adviserende diens en van die onkunde van die arbeiders wat met sulke gifstowwe gewerk het, het dit noodlottige ongevalle veroorsaak. Wanneer hierdie gifstowwe gebruik word is dit noodsaaklik om die werksmense te beskerm; aangesien doeltreffende fasiliteite vir was-, bad- of stortdoeleindes beskikbaar moet wees behoort tydelike of permanente was- of badkamers by die landerye ingerig te word. Die gevaar bestaan ook dat kinders en volwassenes vrugte kan pluk en eet uit boorde wat met die gif behandel is.

Die gevare verbonde aan die gebruik en hanteer van hierdie hedendaagse insektegiwwe behoort alombekend gemaak te word. In hierdie uitgawe (bl. 402) verskyn 'n verslag van 'n symposium oor gesondheid en insektegif wat deur die Suidelike Transvaal-Tak van die Mediese Vereniging van Suid-Afrika in Johannesburg gehou is. Hierdie verslag is slegs 'n sinopsis en nie 'n volledige rapport van die verskeie bydraes tot hierdie symposium nie. Die bydraes wat gelewer is sou in 'n nuttige boekie oor die onderwerp saamgevat kan word vir die gebruik van die menige op plase en elders wat dit nodig vind om ekonomiese gifstowwe te gebruik. Die vergiftigingseienskappe wat aan hierdie landbouchemikalieë hul groot waarde verleen maak hul 'n gevaar vir die mens en alhoewel die grootste verantwoordelikheid op diegene rus wat dit gebruik en aanwend, is dit uiters wenslik

give these agricultural chemicals their great value make them dangerous to human beings, and, while the greatest responsibility rests with those who use and apply them, it is most desirable that the public generally should receive information on the subject.

The increase in the number and availability of insecticidal as of other poisonous substances warrants the attention of all members of the medical profession, which needs to be well informed about these substances so as to be able to give guidance and treatment in connexion with them. Greater emphasis should be given in undergraduate and postgraduate instruction on the health problems arising from the use of insecticides and other chemicals on the farm and in the home.

The doctor—and in connexion with agricultural insecticides, especially the doctor in rural areas—must have information on the pharmacology of toxic chemicals and the treatment of casualties. Victims of poisoning may be brought to him not only at the time of spraying operations, but as the result of chronic poisoning or delayed effects which may also occur. With the organic phosphorus compounds sequelae may follow even in the third week after acute poisoning, e.g. paralysis of the limbs, so that it is advisable to keep patients under close observation until the cholinesterase activity has returned to normal. They should be warned that they are susceptible to small amounts of this poison possibly for several months (until the cholinesterase is restored to normal).

REFERENCES

1. Lurie, D. and Silberman, R. (1953): S. Afr. Med. J., **27**, 273.
2. Editorial (1953): *Ibid.*, **27**, 1149.

dat die publiek in die algemeen oor hierdie onderwerp ingelig word.

Die toename in die aantal en die beskikbaarheid van insekte- en ander gifmiddels regverdig die belangstelling van alle lede van die geneeskundige beroep wat deeglik oor hierdie stowwe ingelig behoort te wees om sodoende in staat te wees om die nodige leiding en behandeling te gee. In voorgraadse en nagraadse onderrig moet groter klem gelê word op die gesondheidsprobleme wat ontstaan as gevolg van die gebruik deur die huisvrou en die boer, van insektegif en ander chemikalieë.

Die geneesheer—en in verband met landbougifstowwe die plattelandse geneesheer in besonder—moet inligting tot sy beskikking hê oor die farmakologie van giftige chemikalieë en die behandeling van ongevalle. Hy sal nie net tydens spuittyd ontbied word om slagoffers van vergiftiging te help nie, maar ook op ander tye om pasiënte, wat aan kroniese vergiftiging of vertraagde uitwerking ly, tot hulp te wees. Met die gebruik van organiese fosforverbindings kan daar nagevolge selfs in die derde week na akute vergiftiging verskyn byvoorbeeld verlamming van die ledemate, sodat dit derhalwe wenslik is om die pasiënte goed dop te hou totdat die cholienesterase aktiwiteit weer in normale werking tree. Hul moet gewaarsku word dat hul waarskynlik vir 'n paar maande vir klein hoeveelhede van hierdie gif vatbaar sal wees (totdat die cholienesterase in normale werking tree).

VERWYSINGS

1. Lurie, D. and Silberman, R. (1953): S.A. T. vir Geneesk. **27**, 273.
2. Van die Redaksie (1953): *Ibid.*, **27**, 1149.

ACQUIRED RESISTANCE TO INSECTICIDES

Drug-resistant strains of bacteria are accepted nowadays as part and parcel of the antibiotic era in which we live, and sensitivity tests have become routine procedures in all pathological laboratories. This phenomenon is not confined to bacteria, however, and at a recent symposium on the control of insect vectors of disease in Rome,[1] most of the papers dealt with the newly-acquired resistance of insects to insecticides.

Perhaps the most dramatic success ever achieved in pest-control followed the introduction of DDT a decade ago. There were half a million cases of malaria in Italy in 1945, with 350 deaths,[2] yet 6 years later barely 400 cases were notified, and no deaths occurred from the disease. In the same period the parasite-rate in school children in Greece dropped from 13% to 0.06%. DDT appeared to have conquered malaria in Europe. Similar successes were attained in the control of plague and typhus by the use of the newer insecticides.

Then, in 1947 public-health officials working in the Pontine marshes first noticed that the magic effect of the routine application of DDT had waned, and an investigation showed that the anopheline mosquitoes had developed a resistance to the drug. By 1951 this acquired resistance had spread to other compounds such as chlordane, aldrin and metoxychlor as well, and the anophelines were now quite unaffected by DDT treatment. Not only mosquitoes, but also lice and fleas failed to succumb to its application.

This partial failure of control with insecticides has had the salutary effect of renewing interest in basic public-health procedures such as draining stagnant water, eliminating potential breeding-places of the vectors—in short, 'making life impossible' for the insects. It has also stimulated research into the interesting and as yet not fully explored field of biological control, namely, making use of naturally-occurring enemies of the insects which are to be destroyed. For instance, control of the California alfalfa caterpillar with a parasitic virus sprayed on the plants has been most encouraging, and recently a species of fish which eat mosquito larvae has been introduced into rice-fields.

But there is a moral to be drawn from a quotation from the symposium, which can be read to all dispensers of the antibiotic drugs: 'There is no doubt that the indiscriminate use of DDT has helped to hasten the appearance of resistance. Care should be taken that insecticides are employed with discrimination . . . '

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1. *Resistance to Insects and Insecticides.* Chronicle of the Wld. Hlth. Org., January 1954.
2. *Toxic Hazards of Certain Pesticides to Man,* Wld. Hlth. Org. Monograph Ser. No. 16, 1953.

MITRAALSTENOSE

'N OORSIG VAN MY EERSTE 100 GEVALLE VAN MITRAAL-VALVULOTOMIE

MICHAEL JORDAAN, M.D., PH.D.

Kaapstad

Die chirurgie van die hart het in 1882 begin met resultate wat Bloch met diere-proefnemings verkry het. In 1896 was dit Farina wat as eerste gewaag het om 'n hartnaat aan 'n mens te maak. Daarna het Rehn in 1898 met sy werke gevolg. Gedurende dieselfde jaar het Delorme as eerste die verdikte hartvlies verwyder. Daarna het die pogings van Graybiel, Strieder en Boyer gevolg om die oop ductus arteriosus te verwyder en Gross het toe in 1939 dit werklik gedoen. Crafoord het in 1945 nog die meer opwekkende ‚Isthmus stenose van die aorta' operasie gedoen. 'n Totale nuwe era in die geskiedenis van hartoperasie het egter in 1944 ingetree met die verbinding van die sistemiese sirkulasie met die pulmonale sirkulasie deur Blalock in gevalle van bepaalde sianotiese hartkwale.

Hierdie operasie het egter gehandel oor aangebore hartkwale en was beperk tot handelinge buite die hart self en aan die groot are onmiddellik na hulle die hart verlaat het. Gedurende hierdie laaste ontwikkeling, is steeds eksperimente gedoen met die doel om intrakardiaal te opereer op sekere aangebore sowel as verwerfde hartkwale. Aljuis in 1913 het Doyen die eerste intra-kardiale operasie gedoen. Dit was 'n poging om deur die muur van die linkerkamer te gaan en die verenging van die mitraalklep te verwyder. Die operasie was egter geen sukses nie. Sy pogings was gevolg deur Cutler en Levine, deur Pribram en deur Allen, maar ook sonder sukses. Dit is aan Souttar oorgelaat om in 1925 die eerste suksesvolle geval van mitraalstenose te opereer deur sonder om in die hart self in te gaan, met sy vinger die muur van die linker-hartkamer teen die verengde klep in te buig en also die klep te rek.

Hierna was dit vir 'n tydlank stil op die gebied van mitraalstenose-chirurgie. In 1948 het Bailey 'n ander suksesvolle operasie gedoen deur met 'n spesiale mes deur die linkerkamer te gaan en also die klep te open. Brock het in 1949 vooraan gegaan met 8 gevalle waarvan 6 suksesvol was. Hy het deur die linkerhartoor gegaan en dan die verengde opening van die mitraalklep met sy vinger gerek. As die klep verkalk was of te hard was om met die vinger te rek, het hy 'n spesiale mes wat op sy vinger gly, gebruik. Terselfdertyd het ook Harken, Bailey, Sweet en andere verskillende pogings aangewend om die verenging van die mitraalklep te verwyder. Hulle het egter deur die kamer self ingegaan en die resultate was nie so goed nie. Later het hulle ook 'n metode ontwikkel wat min of meer met dié van Brock ooreenstem. Die fondament vir 'n standaard operasie vir mitraalstenose was nou gelê. Met die grootste ywer is nou deur verskillende snykundiges in verskillende lande getrag om hierdie verwerfde hartkwaal wat op rein mediese metodes hoegenaamd nie beïnvloed kan word nie, deur middel van chirurgie te genees of te verbeter. In 1952 kon Brock aljuis van 150 operatiewe gevalle berig en Bailey in 1952 van 200 met 'n 10% mortaliteit. Sedertdien styg die aantal berigte oor operatiewe gevalle steeds. Die tegniek is weinig verander.

MATERIAAL

Die gevalle wat hier omskryf word, omvat nie die gesamentlike getal operasies vir mitraalstenose wat deur die skrywer gedoen is nie, maar net die eerste 100 wat gedoen is tussen die tydperk Desember 1950 en Desember 1953. Die oorgrote meerderheid van dié gevalle was in die volgende Kaapstadse hospitale gedoen: Die Volks, die Conradie en die Nuwe-Somerset. Die narkose in dié gevalle was gegee deur een van die volgende narkotiseure: dr. E. G. van Hoogstraten, dr. P. S. Jenkin of dr. J. Linklater. Die interniste wat saamgewerk het, was verskillend daar die pasiënte meesal privaat was en deur verskillende interniste verwys was. Elke internis het dan by sy gevalle saamgewerk. Ook omrede dat dit meesal privaat pasiënte was, is alle voor-ondersoeke op die noodwendige beperk en niks wat net van 'n wetenskaplike waarde is en geen spesifieke diagnostiese waarde het, is gedoen nie. So is dan ook net by vier van die pasiënte 'n hartkateteresering gedoen.

Daar was 97 vroulike persone en 3 manlike. Die ouderdomme het gewissel van 13 jaar tot 53 jaar. 70% van alle gevalle was tussen 25 en 40 jaar.

Tagtig persent het 'n geskiedenis van rheumatiekkoors gehad. 90% het aangegee dat hul toestand gedurende die laaste drie jaar geleidelik slegter geword het. Die ander 10% het òf 'n korter geskiedenis òf meen dat die toestand dieselfde bly.

Ses persent het kort voor die operasie of binne die voorafgaande drie maande 'n dekompenseerde hart gehad en 52% het by een of ander tyd 'n dekompenseerde hart gehad. Geen enkele van die gevalle kon verder as een myl op gelykgrond stap sonder om moeg te word nie of meer as 10 trappies klim nie. Een vrou was vir 5 jaar in die bed en 'n ander 3 jaar en een vir 2 jaar. Vier van die vroue was swanger, die oudste swangerskap was geval V. Van die 97 vroue was 61 getroud en 46 het een of meer kinders gehad. By 21 het die eerste hartmoeilikheid eers na die geboorte van die eerste kind opgetree en 25 òf voor òf met die geboorte van die eerste kind.

INDIKASIESTELLING

Die hoof indikasie is 'n verengde mitraal klep. Die eenvoudigste is 'n suiwere stenose sonder enige ander klepmoeilikheid. *'n Sekonderêre tricuspedaalklep-lekking*, selfs wanneer dit met swaar dekompensasie van die hart gepaard gaan, verbeter nadat die mitraalklep-vernouing oopgemaak is en die opdamming van bloed in die venouse sisteem verlig is. In dié series was daar 3 gevalle van dié

aard. Twee het goed gevorder en 1 is dood met hartstilstand op die tafel.

'n Aorta-klepstenose, alhoewel vantevore 'n kontra-indikasie vir operasie, is nou nie meer so nie. Alhoewel nie in dié series ingeslote nie, het skrywer 2 gevalle met sukses gedoen waar hy eers die mitraalklep en toe die aorta-klep gedurende dieselfde operasie oopgemaak het. Ook Bailey rapporteer sulke gevalle.

Aorta-lekking is 'n absolute kontra-indikasie. Met die oopmaak van die mitraalstenose en bestaande aorta-lek, vind 'n stremming van die linker-ventrikel plaas. Die lekking van die aorta-klep kan nie reggemaak of verbeter word soos in die geval van die aorta-klepstenose nie.

'n Matige gelyktydige lekking van die mitraalklep is by 'n groot aantal van mitraalstenose teenwoordig, maar by die oopmaak van die stenose word die klep weer vry beweeglik en sy los seile kan met systole weer mekaar ontmoet, wat die lekking verwyder. *Dit is nie altyd 'n mate van relatiwiteit nie, d.w.s. in welke mate die lekking die stenose oorweeg of omgekeerd nie, maar wel die aard van die misvorming van die klep.* Mens sal vind dat 'n harde ronde ring van ongeveer 1 cm. deursnee bestaan wat as sulks 'n stenose van die klep beteken, maar ook omrede die harde ring nie kan sluit nie en dan 'n gelyktydige lekking veroorsaak. As die liggaam van die klep (dit is die seile) beweeglik is, dan kan die hele opening wat deur die harde ring veroorsaak word, weer sluit onmiddellik na albei kommisura oopgesny is om sodoende die stenose sowel as die lekking te verwyder. Is egter die liggaam van die klep in sy anteriore asook posteriore deel fibroties, hard en gekrimp of verkalk, dan help dit hoegenaamd nie dat die harde klep in die kommisura oopgesny word nie. Die liggaam van die klep bly star en onbeweeglik. Gevolglik kan die rande nie tesame kom met systole nie en die lekking bly bestaan of is onder omstandighede nog groter. Die verkalking van die klep alleen is hoegenaamd geen kontra-indikasie vir operasie nie, mits die liggaam van die klep nie gekrimp is nie. *Om hierdie beskaffenheid van die klep vooraf te kan bepaal, is vrywel die belangrikste in die hele diagnose.* Dit kom derhalwe nie daarop aan nie dat daar net tekens van 'n stenose is en geen tekens van 'n gelyktydige lekking nie. Daar kan selfs tekens wees van 'n geweldige lekking en as die beskaffenheid van die klep gunstig is, dan kan ook die geweldige lekking òf verwyder òf verbeter word deur die stenose te verwyder. Is die beskaffenheid van die klep nie gunstig nie, kan die lekking onder omstandighede deur so 'n poging weer vererger word. Omdat daar geen kliniese of laboratoriummetodes is om ons hier 'n leidraad te gee nie, moet ons, om tog veilig te stuur, teen 'n operasie wat nie mag help nie of selfs nadelig mag wees, besluit. Dit word gedoen deurdat ons dan 'n geval van *oorheersende lekking* van die mitraalklep ewemin sou opereer as 'n geval van *suiwere lekking*, wat meesal veroorsaak word deur òf krimping van die chordae tendinae sowel as die papilaar spiere òf 'n sekondêre algemene rekking van die mitraalring.

Dit was vir die skrywer meesal moontlik om met die voel van die vingerkop die mate van terugvloei van die bloed of nie, vas te stel. In dié series kon hy in 24% gevalle van stenose geen terugvloei voel nie en moes aangeneem word dat dit hier om suiwere stenose gaan wat deels met die vinger en deels met die mes oopgemaak kon word. By 40% kon hy 'n terugvloeiing van verskillende mate voel. Dit meen dat daar 'n mate van lekking bestaan het. Nadat die stenose in dié gevalle verwyder was, kon geen terugvloeiing bespeur word nie wat 'n aanduiding was dat die lekking in dié gevalle ook verwyder was. Dit beteken dat in dié gevalle die vrye kante van die nou meer beweeglike kleppe mekaar weer kon ontmoet met systole. By 6% het die gevoel ontstaan dat met die verwydering van die stenose die klep ietsie beweegliker geword het en die lekking minder. By 3% was die indruk dat daar geen verskil is nie. Dit was starre ingekrimpte kleppe. In een geval waar die voorste en agterste seil van die klep soos 2 harde verkalkte worsies effens gebuig teen mekaar gelê het, was met 'n poging om dié toestand te verbeter, die lekking bepaald vererger. By 26% van die gevalle kon nie definitief 'n idee gekry word oor die mate of nie van terugvloeiende bloed met systole nie.

Dit is also heeltemal duidelik wanneer Brock sê: ‚Dit is nodig om nadruk daarop te lê dat die finale beoordeling of 'n klep moontlik is vir 'n operatiewe herstelling of nie, en die prognose na die operasie, eers dan gemaak kan word wanneer die klep werklik met operasie ondersoek word.'

Alle sekondêre veranderinge soos byvoorbeeld *aurikulêre fibrilasie, myocard skade en pulmonale hoogdruk*, kan geen operatiewe teenstelling wees nie. Grotendeels verdwyn die simptome of verbeter hulle geweldig nadat die primêre oorsaak verwyder is. Geeneen van hierdie verskynsels het in hierdie series van gevalle 'n nadelige invloed op die operatiewe verloop of resultaat gehad nie. By 8 van die 30 gevalle wat aurikulêre fibrilasie getoon het, het dit na 3 maande nog bestaan, maar die pasiënte was oneindig beter. Al 8 die gevalle het 2-3 grade in die bekwaamheidslys gestyg.

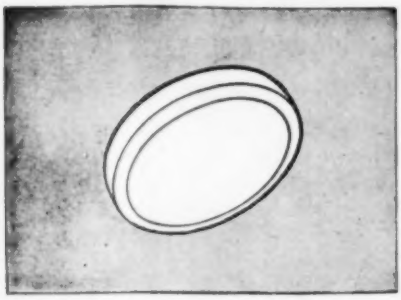
Alhoewel 'n dekompenseerde hart eers medies behandel moet word tot so 'n mate dat mens met 'n taamlike veilige operatiewe risiko moet reken, is dit tog moontlik dat mens weens akute pulmonêre long-oedema 'n noodoperasie moet doen. Dit was die geval in 2 van die series met uitstekende resultaat.

Aktiewe Rheumatismus. 'n Operasie moet moontlik vermy word terwyl daar nog enige tekens van rheumatismus is, ingeval daar weer 'n herhaling van die stenose sou ontstaan na die operasie. Noodgedwonge kan dit ook hier geskied en na 'n voorbeeld van Bailey is in dié series op 'n 13-jarige meisie met nog akute verskynsels opereer omdat daar aanvalle van long-oedema van uiters akute aard was en daar lewensgevaar bestaan het. Mediese behandeling van rheumatisme is op 'n langdurige plan voortgesit. Dit is noual meer as 1 jaar en haar toestand is nog baie bevredigend.

Sub-akute Bakteriële Endocarditis behoort eers deeglik behandel te word voor operasie. Vier tot ses maande behandeling met anti-biotika behoort te voldoen. In dié series was geen enkele geval met S.B.E. nie.

TEGNIEK

Al die pasiënte in hierdie series was eers deeglik gedigitaliseer. Die dag onmiddellik voor die operasie het hulle ook 'n diuretica gekry. In die gevalle waar aurikulêre



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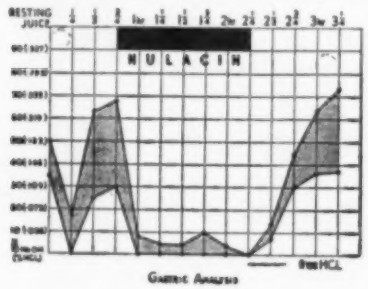
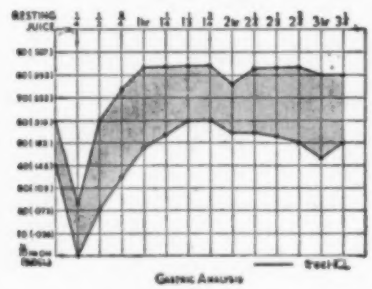


Superimposed gruel fractional test-meal curves of five cases of duodenal ulcer.



Same patients as in Fig. 1, two days later, showing the striking neutralizing effect of sucking Nulacin tablets (3 an hour). Note the return of acidity when Nulacin is discontinued.

REFERENCES:

British Medical Journal, 180—182, 26th July, 1952. Medical Press, 195—199, 27th February, 1952.

INDICATIONS

NULACIN tablets are indicated whenever neutralization of the acid gastric contents is required: in active and quiescent peptic ulcer, gastritis, gastric hyperacidity. *Dosage:* Beginning half-an-hour after food a NULACIN tablet should be placed in the mouth between the cheek and the gum and allowed to dissolve.

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fibrilasie bestaan het, was ook aljuis voor die operasie met quinidine sulfaat begin. Die narkose was in alle gevalle 'n algemene intubasie narkose met gas, suurstof en curare. Met die eerste 7 gevalle was die linker laterale snit gebruik. By die daaropvolgende 46 gevalle die linker anterio-laterale en toe by die latere 47 gevalle weer die linker laterale snit tussen die 5de en 6de rib. Dit is gevind dat die snit 'n toereikende opening vir gemaklike werk verskaf en nie die ongemaklike pyne langs die sternum waar die ribbes deurgesny was, veroorsaak nie soos in die geval van die anterio-laterale snit. Ook is daar nie hypo-aesthesia van die bors nie, wat veroorsaak word deurdat die borshelfte omsny en teruggeklap word. In die algemeen is die laterale snit ook eenvoudiger.

Nadat die borskas oopgemaak en die long teruggedruk is, word die viserale pleura van die pericardium afgeskil deur anterior van die phrenicus en bloedvate te begin en dit na agter te skuif. Vier kub. cm. van 'n 1% procaïën oplossing word dan in die pericard gespuit en 5 minute gewag. Gedurende hierdie tyd word die long weer opgeblaas. Die pericard word dan geopen en die hart op die bepaalde punte versigtig afgetas om die moontlike systoliese en diastoliese trillinge te beoordeel. Op dié wyse word die pre-operatiewe diagnose nogmaals bevestig al dan nie. Die hartoor word dan opgelig en afgetas om sy grootte, vorm en beskaffenheid te bepaal, asook die moontlikheid van 'n bloedklont binne die hartoor.

'n Derraklemme of 'n Crafoordklemme, namate die vorm van die hartoor, word dan aan sy basis gelê en met 'n skêr word 'n snit in die punt van die hartoor gemaak om die bloed wat deur die klemme opgedam is, te verwyder. 'n Opening groot genoeg vir die voorvinger word gemaak en alle trabeculae wat die ingang mag versper, word deurgesny. Ingeval 'n bloedklont in die hartoor mag wees, dan word sy punt albei kante deur die assistent lig met klemme geneem en die klem aan sy basis word oopgemaak, maar in posisie gehou terwyl die bloedklont self lig met 'n pinsette verwyder word nadat dit eers versigtig losgemaak is. Die bloedstroom was alles skoon uit. Mens laat op die aard en wyse die bloed twee of driekeer uitstroom om enige moontlike klein stukkies wat nog agtergebly het, ook uit te spoel.

Daar word nou 2 tabaksaknate aangelê distaal van die klem, een na elke kant. Die assistent hou die punte van die hartoor met 2 lang pinsette saggies vas, die regtervinger word in die opening van die hartoor geplaas en terwyl die klem wat aan die hartoor basis is met die linkerhand oopgemaak word maar in posisie gehou word, gly die regtervinger deur die hartoor in die voorkamer. Die assistent laat nou die punte wat hy vashou, los. Met die vinger word nou die beskaffenheid van die mitraalklep versigtig afgevoel, die lekking, teenwoordig of nie, geskat, die vingerbal word dan aan die voorste seil van die klep gelê op dié punt waar die verklewing van die anterio-laterale kommisura begin en met 'n skuinste na voor en lateraal gedruk. In die laaste gevalle wat skrywer gedoen het, is met die voorvinger van die vrye hand buite teen die muur van die linker ventrikel gehelp. As die kommisura oopskeur, dan word die vinger op dieselfde wyse teen die verkleefde posterio-mediale kommisura gelê en op dieselfde wyse te werk gegaan. As dit ook oopgeskeur het, word met die vinger deur die opening van die klep gegaan en seker gemaak dat albei seile vry van die ventrikelspiere is.

Ingeval die kommisura van die hart nie geklowe kan word met die vinger nie soos in die geval van harde fibrotiese veranderinge, dan word die vinger uit die hart verwyder, die klem weer aan die basis van die hartoor aangelê en die vinger word dan met die ringmes van Brock bewapen en die vinger op dieselfde wyse weer in die hart gesteek. Die anterio-laterale kommisura word dan oopgesny tot teen die hartspier. Met die posterio-mediale kommisura word versigtiger gehandel om die snit nie waarskynlik in die verkeerde rigting, d.i. na die aorta-opening, te laat gaan nie. Met harde fibrotiese en gekrimpte kleppe is dit dikwels die geval dat die posterio-mediale kommisura in dié rigting verskuiwe is. As in so 'n geval die kommisura sy hele lengte geklowe of oopgesny word, dan is die stroomrigting van die bloed na die aorta-klep wat gedurende die systole plaasvind en deur die voorste seil van die klep gestuur word, gesteur. Die resultaat is dan 'n buitengewone sterk mate van lekking.

Nadat die klep voldoende oopgemaak is, word die vinger verwyder, die klem aan die basis versigtig toegemaak, die borskas word skoongemaak en alle verspilde bloed uitgesuig. Die omgewing van die hartoor en voorkamer word versigtig ondersoek of enige eventuele bloedinge plaasgevind het en, as nodig, word dit dan versorg. Die tabaksaknate word styf getrek en geknoop terwyl die klem aan die hartoor basis oopgemaak, maar tog versigtig in posisie gehou word. As dit skyn dat die nate dig is, word die klem verwyder en daarna nog 'n ekstra naat oor die wond aangelê.

Weer word die bloed nou uit die hartvlies gesuig en daarna toegemaak deur 'n paar enkele nate sodat daar ruimlik opening is ingeval bloed afgesonder word binne die hartvlies.

Nadat alle bloedingspunte versorg is en 'n dreinering in die borskas geplaas is, word die borskaswond gesluit.

Tot die tegniek kan vermerk word dat as dit 'n normale geval is van 'n suiwer stenose en geen komplikasies optree nie, die operasie dan eenvoudig is. Komplikasies word meesal veroorsaak deur bloeding wat mag ontstaan as die muur van die hartoor of die voorkamer sou skeur. By die series was daar 3 gevalle waar taamlike bloeding opgetree het, 2 waarvan die opening in die hartoor geskeur het tot proximaal van die tabaksaknate. Albei kon egter weer met die klem gevat word en met 'n ekstra tabaksaknaat wat meer proximaal aangelê is, gesluit word. 'n Ander was waar die endocard van die hartoor verkalk was en deur die aanlê van die klem die kalkplaat gebreek het. Op 'n paar plekke het die kalk deur die spierlae van die hartoor gesteek en 'n sterk bloeding veroorsaak. Die posisie van die punte was sulks dat geen klem meer proximaal kon aangelê word nie. Vingerpunte was op die klein skeurtjies gelê en elkeen na mekaar met 'n matrasnaat gesluit.

By 61 van dié series kon die mitraalklep met die vinger oopgeklowe word, by 38 was die mes gebruik en by 1 was daar hoegenaamd geen klepmateriaal wat kon geskeur of gesny word nie.

By 8 van die gevalle was die pericard verdik en by 4 van die gevalle was daar verklewinge tussen pericard en hartspier. By 1 geval het dit gehandel om 'n reëlregte

konstriktiewe pericarditis. Hier moes die gevaarlike prosedure onderneem word om eers die linker voorkamer met hartoor te bevry van die harde en gedeeltelike verkalkte pericard, dan die mitraalklep te open en dan die pericard van die res van die hart af te skil. 'n Ondersoeking van die pericard het hier getoon dat die aetologie van die konstriktiewe pericarditis tuberkulose was.

Die beskaffenheid van die hartoor is hoogs belangrik. By 15 van die gevalle was die hartoor so eng dat nouliks die vingerpunt kon ingaan, maar tog kon die hartoor op die aard en wyse selfs ingedruk word en die klep met die vingerpunt bereik word. In sulke gevalle is die moontlikheid om die muur van die hartoor te skeur, groot. In al die gevalle was dit egter moontlik om deur die hartoor die klep te bereik en in geen enkele geval was dit nodig om 'n ander ingang na die hartklep te soek nie.

By 11 van die gevalle was organiseerde bloedklonte teenwoordig, òf in die hartoor òf in die voorkamer en moes dié eers verwyder en uitgespoel word.

RESULTATE

Mortaliteit. Uit die 100 gevalle was daar 'n verlies van 3. Die oorsake van dood is as volg:

1. Hartstilstand op die tafel, by 'n buitengewone slegte risiko. Dit was 'n dekompenseerde hart met sekondêre tricuspedaallekking. Hartstilstand het ingetree onmiddellik na die klep, wat sterk verkalk was, geklowe en die vinger uit die hart verwyder is. Alle pogings om die hart weer aangang te kry, was sonder sukses.
2. Hart tamponade: 48 uur post-operatief.
3. Cerebrale embolus: 14 uur post-operatief. Dit was een van die gevalle waar 'n georganiseerde bloedklont bestaan het en wat so deeglik as moontlik verwyder en uitgespoel was.

Van die 97 nog lewende persone, kon net 52 nadat hulle die hospitaal verlaat het, weer ondersoek word. Die ander 45 het net brieflik van hulle bevinding kon berig. Die resultate kon as volg ingedeel word:

1. *Slegter as voorheen:* 1 geval.

Dit is 'n geval waar die klepseile opgerol en verkalk was. 'n Poging was aangewend om die kalk by albei kante te breek en die hartspier dan meer beweging van die harde kalkrolle te gee in die hoop om op dié wyse die lekking te verminder.

2. *Geen verbetering:* 3 gevalle.

Dit was al drie gevalle waar die lekking predominerend was en die kleppe deur hul beskaffenheid d.i. ingekrimpte kleppe, nie gunstig verander kon word nie.

3. *Bepaalde verbetering:* 93 gevalle.

Ingedeel volgens die bekwaamheidsskaal van Graad 0 tot Graad 5, val die getalle as volg:

A. 1 *Graad verbetering:* 10 gevalle.

Hier is 7 gevalle by met 'n oorweldigende sterk mitraallekking. Die diagnose was voor die operasie gestel en ook assulks gevind met digitale ondersoek gedurende die operasie. Deur die klep oop te maak, het die klepseile meer beweeglikheid gekry en die lekking, alhoewel baie verbeter, bestaan by 5 van die gevalle nog. *Pre-operatief* was dié 10 gevalle as volg ingedeel: Graad III 5, Graad IV 4, Graad V 1.

B. 2 *Grade verbetering:* 61 gevalle.

Hierdie was almal gevalle van òf suiwer mitraalstenose òf waar die stenose oorwegend was. *Pre-operatief* was hierdie 51 gevalle as volg ingedeel: Graad II 24, Graad III 28, Graad IV 9. *Post-operatief* was daar also Graad 0 24, Graad I 28, Graad II 9.

C. 3 *Grade verbetering:* 21 gevalle.

Hierdie was almal gevalle van suiwer mitraalstenose. Daar is ook 2 gevalle by waar die klep heeltemal sterk verkalk was. In hierdie rubriek val ook 2 gevalle wat swanger was en waar die kinders aljuis na die operasie gebore was sonder enige komplikasie. *Pre-operatief* was hierdie 21 gevalle in die volgende Grade ingedeel: Graad III 11, Graad IV 9, Graad V 1. *Post-operatief:* Graad 0 11, Graad I 9, Graad II, 1.

D. 4 *Grade verbetering:* 1 geval.

Hierdie was 'n suiwer eng mitraalstenose en die klep nog uiters beweeglik. Die pasiënt was pre-operatief in Graad IV geklassifiseer. Die geskiedenis was kort, maar akuut. Oedema van die longe was die dreigende faktor. *Post-operatief* is sy toe in Graad 0 geklassifiseer.

Gesamentlik kan die lot van die 100 gevalle dan as volg ingedeel word:

Dood: 3
Slegter as voorheen: 1
Geen verbetering: 3
Verbetering met 1 Graad: 10
Verbetering met 2 Grade: 61
Verbetering met 3 Grade: 21
Verbetering met 4 Grade: 1

Die 93 gevalle wat 'n verbetering toon, het die volgende Graadsverskuiwing getoon:

Graad	0	I	II	III	IV	V	*Totaal*
Pre-operatief	—	—	24	44	14	11	93
Post-operatief	36	37	15	4	1	—	93

SAMEVATTING

Kortliks is hier my wedervaringe gegee van my eerste 100 gevalle van mitraal-valvulotomie. Daar is kortliks op die geskiedenis ingegaan wat gelei het tot die teenswoordige standaard operasie. Die materiaal is aangegee, die indikasiestelling is bespreek spesiaal met betrekking tot die gelyktydige mitraallekking, die tegniek wat ek gebruik, is beskrywe en die resultate wat verkry is, is ontleed.

SUMMARY

The experience and results obtained with my first 100 cases of mitral valvulotomy are briefly discussed. A short history leading up to the present standard operation is given. The material is analysed and the indications for operation discussed, with special emphasis on a simultaneous mitral regurgitation. My operative technique is described and the results obtained classified.

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UROLOGICAL PROBLEMS IN PREGNANCY

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Urinary complications during pregnancy, though uncommon, are encountered from time to time. They vary in significance and severity from relatively minor conditions easily dealt with, and having little effect on the course of the pregnancy, to serious urological disease necessitating its termination or resulting in spontaneous abortion.

The purpose of this paper is to discuss some of the more serious complications which can give rise to major urological problems in their management.

HAEMATURIA

The occurrence of haematuria during pregnancy is not always of serious significance. It usually occurs during the later stages, varying in severity from gross bleeding to blood visible only upon microscopy. It may persist, continuously or intermittently, up to the time of delivery, but will usually clear up in the puerperium.

The source of origin of the bleeding is usually the kidney, although it may originate in the ureter or bladder. The commonest cause is pyelonephritis, but hydronephrosis, tuberculosis, polycystic disease or a neoplasm may also be responsible. The possibility of Bright's disease should be borne in mind, since this condition has been known to cause haematuria during pregnancy. Urinary calculi occurring during pregnancy do not often cause haematuria as there is dilatation of the upper urinary passages. In many cases no cause can be found, and here the bleeding has been ascribed to increased vascularity or ruptured varices in the upper urinary tract. It should be stressed, however, that every case of haematuria, particularly if recurrent and profuse, should be thoroughly investigated.

The initial approach should be conservative. In the majority of cases the haematuria ceases with rest in bed and appropriate chemotherapy where necessary. Sometimes the bleeding may be severe, despite the presence of a normal pyelogram and urine free from infection. If a vesical cause can be ruled out and the blood is seen to be coming from one or both of the ureteric orifices during cystoscopy, appropriate indwelling ureteric catheter drainage under antibiotic coverage may have to be resorted to; silver nitrate irrigations may be tried in some cases. If any abnormality is detected in the urinary tract, it should be dealt with accordingly.

BACTERIURIA

When bacteria are found to be present in the urine of a patient with symptoms of a urinary tract infection, pus cells are usually present as well and the diagnosis of pyelonephritis is confirmed. The micro-organisms most commonly isolated in these cases are B.coli, with the Staphylococci and Streptococci next in order of frequency.

There is disagreement upon the significance of bacteriuria during pregnancy when the urine is free of leucocytes and there are no symptoms to suggest a urinary infection. Since these cases may often experience an uneventful pregnancy, little or no importance has been attached to the urinary findings. The modern view is to regard such a urinary tract as the seat of an infection, and as long as the organisms persist the possibility exists of an acute pyelonephritis occurring; prophylactic chemotherapy will minimize the risk of this taking place.

UROLITHIASIS

Although uncommon, calculi in the urinary tract during pregnancy should be regarded as a serious complication. While the presence of urinary calculi in the non-pregnant state may have relatively little effect upon the kidney, urolithiasis during pregnancy associated with infection is often a serious problem, and can progress to severe pyelonephritis and pyonephrosis, relatively resistant to treatment.

The clinical picture is variable and depends largely upon the stage of pregnancy with its corresponding degree of atony and dilatation of the upper urinary tract, the presence and severity of associated infection and the size of the calculus. During the earlier months, before dilatation has occurred, pain is more often a predominating feature, especially where a small stone becomes impacted at the pelvi-ureteric junction or in the ureter. During the later months the symptoms are often those of a pyelonephritis resistant to treatment; and it is only if the possibility of a calculus is borne in mind and the patient X-rayed, that a stone may be detected and the basic cause of the symptoms found. Gross haematuria is not nearly as common as are microscopic haematuria and pyuria. Intravenous urography is a valuable aid in diagnosis; where this is inconclusive, and especially if calcified mesenteric glands or foetal parts are present in addition, retrograde urography with oblique and lateral views may be necessary. In some cases, acute appendicitis, cholelithiasis, tubal pregnancy or torsion of an ovarian cyst have been implicated only to be ruled out by thorough investigation of the case.

Each case should be considered carefully before deciding upon its management. Apart from the severity of the symptoms, the influencing factors are again the stage of pregnancy, the presence and severity of infection and the size of the calculus. General measures should include an adequate daily fluid intake of 3-4 litres orally; where this is not possible because of vomiting or in an unco-operative patient, intravenous infusion should be resorted to. Appropriate chemotherapy is administered according to urinary findings, and analgesics and antispasmodics as required.

During the first 4 months of pregnancy surgical measures aimed at removing the calculus are more readily undertaken as they are easily performed and less

risky than in the later months. If the calculus is small and is not causing complete obstruction, the general measures outlined above should be given a fair trial. If these are unsuccessful or if the stone is completely obstructing the ureter, and if infection is present, per-cystoscopic removal should be tried. There is no contra-indication to repeated attempts if necessary; termination of pregnancy will not result if the procedures are carefully performed. If ureteric manipulations are unsuccessful, pyelolithotomy or uretero-lithotomy should be carried out to prevent the occurrence of progressive renal damage, and to avoid the possibility of operation at a later (and more unfavourable) stage. In most cases the pregnancy will continue normally.

If ureteric manipulations fail in the later months, a lithotomy is generally not favoured because of the difficulty of exposure and the markedly increased vascularity, together with the greater risk to mother and foetus. Every effort should be made by conservative means to enable delivery to take place as close to term as possible. If, however, the infection remains uncontrolled and there is evidence of progressive renal damage, a temporary nephrostomy may be indicated to tide the patient over this critical period. Removal of the calculus, or sometimes nephrectomy, can be carried out at a later date.

It is important that these patients be observed regularly after delivery. If there is evidence of urinary infection or the presence of another calculus, these should be dealt with before the patient is again allowed to become pregnant.

What of the woman who desires to become pregnant for the first time, from whom calculi have been removed, and who has a recurrence when first seen? This state of affairs is no contra-indication to her becoming pregnant, provided the stones are first removed. If the woman is already pregnant when first seen, and there is no clinical or radiological evidence of recurrence of calculous disease, and no gross renal deformity or functional impairment, the pregnancy may be allowed to continue. Careful observation throughout pregnancy is imperative, and if recurrence occurs, appropriate measures must be taken without delay.

HYDRONEPHROSIS

The advisability of permitting pregnancy or of allowing it to continue depends upon the degree of the hydronephrosis, whether it is unilateral or bilateral and whether or not there is infection present. The size of a hydronephrosis present before pregnancy is increased by the superimposed physiological dilatation of the urinary tract during the pregnant state. It should be borne in mind that hydronephrosis is often bilateral, or potentially so. Infection is not uncommon in such kidneys during pregnancy, and when it does occur, it is often severe resulting in marked renal damage.

If well-marked hydronephrosis is found in a patient contemplating pregnancy, corrective surgical measures should be carried out before pregnancy is advised. In lesser degrees pregnancy can be permitted to occur or allowed to continue, provided renal function is normal and urinary infection is absent. These patients should be carefully observed by repeated examination of catheter specimens of urine and by intravenous pyelograms. If infection occurs it should be treated without delay, and in severe cases hospitalization is advisable. When there is evidence of deterioration of renal function and/or the infection cannot be overcome, termination of the pregnancy may have to be advised. In such cases future pregnancy must not be advised until the hydronephrosis is corrected surgically and infection is eliminated from the urinary tract.

TUBERCULOSIS

This is one of the most serious complications of the urinary tract encountered during pregnancy, though fortunately rare. It is secondary to tuberculous disease elsewhere, usually in the lungs. The patient with protracted pyuria who has an acid urine from which no bacterial growth can be obtained on routine culture should always be examined for tubercle bacilli. If smear and culture procedures are inconclusive, guinea-pig inoculation should be requested. Intravenous pyelography should be carried out, and in the earlier months of pregnancy this test is often adequate. Cystoscopy combined with ureteric catheterization for purposes of collecting samples of urine from each kidney, and followed by retrograde urographic studies may be necessary, particularly where intravenous urograms are inconclusive or if the films show no abnormality in the kidneys and the patient's urinary symptoms are marked. Ureteric catheterization should be performed under heavy antibiotic coverage to minimize the chances of introducing secondary infection, which may result in more rapid progress of the destructive process.

The view that the finding of urinary tuberculosis during pregnancy indicates its immediate termination is not acceptable as a general rule. The influencing factors are: whether the disease is unilateral or bilateral, the severity of the symptoms and the stage of the pregnancy. In the earlier months in unilateral cases nephrectomy can be performed and the pregnancy allowed to continue. Pre- and post-operative administration of Isoniazid, streptomycin and P.A.S. is essential; the foetus is not adversely affected. In the later stages nephrectomy becomes more difficult; in such cases where the woman is particularly anxious to bear a child, antibiotic therapy is commenced without delay and the pregnancy is terminated as soon as there is a good chance of a viable child being born; nephrectomy is carried out soon after delivery. If bilateral renal tuberculosis is found, the sooner the pregnancy is terminated the better is the outcome of the disease. The finding of extensive involvement of the bladder is a strong indication for Caesarean section, as damage to the bladder by vaginal delivery can be complicated by vesico-vaginal fistula formation; tubal ligation should be performed at the same time.

CONGENITAL POLYCYSTIC KIDNEYS

This condition is rarely seen during pregnancy, since the disease-process does not often give rise to symptoms in the childbearing age-group. When found in a gravida, it usually has been detected during diagnostic pyelographic studies for haematuria or urinary infection. The

advisability of allowing the pregnancy to continue depends upon the capacity of such kidneys to cope with the additional work demanded of them during pregnancy. If a thorough investigation of the case shows that renal function is satisfactory and that haematuria or infection can be controlled by appropriate treatment, the pregnancy may be allowed to continue. Many such women will live comfortably into the forties or even longer, and the fact that they have polycystic disease and the possibility that it might occur in their offspring should not be regarded as an indication to terminate pregnancy. If, however, it is found that there is well-established renal functional impairment present, or if the complications which have drawn attention to the disease are not controlled by ordinary means, termination should be advised.

PELVIC ECTOPIC KIDNEY

The presence of an ectopic kidney situated in the pelvic cavity should be borne in mind when a pregnant patient complains of pain in the lower back or abdomen, especially if urinary symptoms are present, and a mass in addition to the enlarged uterus is found on pelvic examination. This finding may be interpreted as an ovarian cyst or a tubal pregnancy and the possibility of it being an ectopic kidney overlooked. Drainage from such kidneys is often defective, and when symptoms occur the kidney is often hydronephrotic or the seat of a pyelonephritis. All these cases should be subjected to full urinary examination and intravenous pyelography. X-ray pelvimetry will determine whether the pelvic cavity will prove adequate to allow expulsion of the foetus. Any associated pathological condition in the kidney should be appropriately dealt with. Unless intractable or gross renal disease is present, the finding of an ectopic kidney is no indication for termination of pregnancy.

The majority of cases will have spontaneous normal deliveries, since a mobile ectopic kidney tends to ascend as the head advances during labour. The patient should be carefully watched, however, and repeated rectal and/or vaginal examinations carried out to ensure that the mobility of the kidney has not diminished since the first examination. If the kidney is found to be fixed as a result of it being impacted against the sacrum, and particularly if this finding is associated with faulty progress of the head, immediate Caesarean section should be carried out.

PREGNANCY AFTER NEPHRECTOMY

The decision whether to allow a woman with one kidney to become pregnant or to continue with her pregnancy is influenced chiefly by the state of the remaining kidney and by the nature of the disease for which nephrectomy was undertaken. Such a patient should be thoroughly investigated before it is decided that pregnancy can be allowed.

A healthy lone kidney is not usually adversely affected by the course of the pregnancy. It bears the additional work demanded of it very satisfactorily, but should it be diseased the destructive process is often more rapidly progressive and difficult to control. If a urinary complication is going to occur, it is more likely to do so when the right kidney remains, since dilatation and stasis are more marked on this side.

In addition to a thorough physical examination, detailed studies should be carried out to detect the condition of the kidney without delay. These should be repeated during the course of the pregnancy, if this is allowed to occur. The absence of albuminuria does not necessarily indicate that the kidney is healthy: catheter specimens of urine should be examined cytologically, and repeated bacteriological examination by smear and culture is essential. Function is determined by one or more of the renal function tests, the fractional Phenolsulphonphthalein (P.S.P.) test being the most accurate and reliable; in the later stages of pregnancy, however, stasis in the upper urinary tract may mask the true figure and it is advisable to carry out the urea clearance test as well. An intravenous pyelogram is essential as it may show pathological changes in the kidney despite negative results in all the other investigations.

The woman who is contemplating pregnancy and whose investigations are entirely normal can be encouraged to continue, provided nephrectomy was not performed for malignant disease or tuberculosis. There is difference of opinion with regard to the latter: the more conservative judgment is against pregnancy; others feel that if 3 years have passed since the operation, if surgery has been supplemented by modern chemotherapeutic and antibiotic measures and if the patient is anxious to bear a child, pregnancy should be permitted.

If the patient is already pregnant when first consulted, and there is evidence of impaired renal function or of any abnormality in the intravenous pyelogram, then pregnancy should be terminated. The finding of a urinary infection in the presence of a normal pyelogram and renal function is perhaps an indication for interruption, although it is felt that if the infection is rapidly eradicated by appropriate chemotherapy and antibiotics, the pregnancy may be allowed to continue; there must be no hesitation in terminating it if infection is resistant to treatment or if it recurs following an initial response. Any evidence of tuberculous infection is an indication for therapeutic abortion.

SUMMARY

1. Some of the more serious urinary complications which can occur during pregnancy are discussed.

2. The importance of full urological investigation of these cases is stressed.

3. Each case should be carefully considered before deciding upon its management. In addition to the nature of the complicating urological disease, the approach depends upon the stage of pregnancy, the efficiency of renal function and the patient's general condition.

4. Antibiotics and other chemotherapy, together with improved methods of diagnosis, allow a more conservative approach to some of these problems than was previously possible.

5. Close co-operation between practitioner, gynaecologist and urologist is essential to ensure a favourable outcome in these patients.

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HIGH THIGH AMPUTATION IN HAEMOPHILIA

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In this article a case is described of amputation of the lower limb 2 inches below the inguinal ligament, with recovery, in a 10-year-old boy suffering from haemophilia.

In an excellent review of reported surgery in haemophilia (1948) Craddock *et al* 3 found the mortality to be high in major cases where the site of operation was not amenable to haemostasis by direct pressure and other local methods. Thus, for major internal surgery they put the mortality figure as high as 50% to 60%, and they concluded that appendicitis, for example, is a far better treated conservatively than operatively. This high figure was arrived at after a close study of recorded cases, from which they excluded many as failing to fulfil their 4 criteria of proven haemophilia. These criteria were: a clotting time of 20 minutes or longer, a positive family history, a typical past history and occurrence in a male. Merskey,[4] among others, has shown that the first condition need not exist. However, on these 4 points Craddock *et al* excluded many of the recorded cases and raised the mortality figure in major surgery from 27% to over 50%.

In the literature of the past 2 decades there have appeared only 2 reports of limb amputation in haemophilia.

Alfred Blalock[1] in 1932 recorded the amputation of the arm through the mid-upper-arm in an adult male haemophiliac for post-traumatic gangrene of the forearm. He attempted to secure haemostasis by ligating separately every piece of soft tissue cut, excepting skin. He avoided stripping bone and did not suture skin. In spite of this, oozing continued for 3 weeks and transfusions of 500 c.c. of blood were given every third day. The patient was discharged after 7 weeks.

Crandon *et al.*[2] in 1953 record a case of mid-thigh amputation in a 5-year-old boy, following compromise of the circulation to the lower leg due to a haematoma in the popliteal fossa. In this case skin flaps were fashioned and skin and deep fascia were sutured with wire. Oozing of blood continued for 3 weeks and daily blood transfusions of 200-300 c.c. were administered. Healing eventually took place with minimal sepsis and the sutures were removed in the 5th week. The patient was discharged to be fitted with a prosthesis 69 days after the operation.

The case reported here is apparently the third reported as surviving limb amputation in haemophilia.

CASE REPORT

F. J., a European boy of 10 years was admitted to the Transvaal Memorial Hospital on 18 June 1953 with an infected haemarthrosis of the left knee following blunt trauma 2 weeks previously.

This child was a proven haemophilia. He had been known to be a bleeder from the age of 1 year, and had been in hospital before for excessive haematoma-formation following fracture of the tibia.

The maternal grandfather and two maternal uncles had been bleeders. The patient's elder brother was a bleeder and both children had been receiving weekly plasma transfusions in the out-patient department, which they had discontinued of their own accord nearly a year before the present admission.

On admission the patient was pale and poorly nourished. Temperature 104° F., pulse rate 140 per minute. Haemoglobin 9 g.%. Clotting time 22 minutes. The left knee-joint and the lower third of the left thigh were grossly swollen to about 3 times the normal size. The skin was inflamed and the leg exquisitely tender to touch or any movement.

Under general anaesthetic 120 c.c. of purulent blood were aspirated from the knee-joint shortly after admission, and in the next 5 weeks, there followed 9 general anaesthetics for incision, drainage, packing and irrigation of a large abscess in the thigh and knee-joint. Large and frequent haemorrhages occurred daily from the cavities and during this period the patient received 20,500 c.c. of blood and 1,800 c.c. of plasma without cessation of the bleeding.

Six weeks after admission it was decided to amputate the leg for the following reasons:

1. The whole lower limb, including the leg as far as the foot, was one large abscess-cavity into which there was profuse and constant bleeding.

2. The femur, tibia and fibula were riddled with osteitis.

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3. Sensation and movements were absent throughout the whole leg.

4. There was grave toxaemia.

All the antibiotics at our disposal, after typing and testing the sensitivity of the organisms, had failed to control the ever-spreading sepsis in the presence of the constant uncontrollable bleeding into all the fascial and muscular planes of the leg.

Guillotine amputation of the leg approximately 2 inches below the inguinal ligament was performed (J. L.) on 4 August. All visible vessels were clamped and ligated and oozing areas in what remained of the muscle were ligated with catgut. The raw area was packed with oxycel soaked in topical thrombin, which was held in place by sutures through the skin. A large and very firm packing was applied with crepe bandages.

Four hours after the operation the dressings were soaked, and the patient was collapsed necessitating an intra-arterial transfusion *via* the right femoral artery.

The dressing was repacked several times, blood transfusions were continued, and after 1 week, under general anaesthetic, the dressings were done again. At this time it was found that the blood clot and pus in the stump had dissected the skin upwards over the pubic ramus and inguinal ligament on the medial side, and above the greater trochanter on the lateral aspect. In these areas sinuses had developed. Bleeding areas, where seen, were again ligated with catgut and some of the oozing controlled. The wound was again packed with oxycel plus penicillin and streptomycin powder.

The dressing was repeated in 5 days and as the sepsis was still uncontrolled it was decided to use bismuth-iodoform paraffin paste 'bipp' as a local application. At the following dressing it was seen that this antiquated paste had overcome local sepsis and the stump was now clean, with signs of healing at the edges. Thereafter 'bipp' was used constantly and the rate of healing was rapid, with a marked improvement in the patient's general condition. Blood requirements gradually diminished, 5,500 c.c. being transfused in the last 2 weeks of August and 4,500 c.c. in the whole of September.

During this period many other complications developed:

1. A too-rapid transfusion in the second post-operative week produced a severe congestive cardiac failure from which the patient nearly died. It was, however, brought under control within 24 hours by digitalization and theurin

2. Other bleeding areas, apart from the stump, appeared, firstly in bedsores, which developed over every pressure point on the back and elbows, and secondly

3. a large haematoma developed over the right thigh. It was feared that this would become an abscess cavity and, because of the poor general state of the patient, repeat the sad sequence of events of the left leg. However, it settled after 4 aspirations and the only complication was a small area of skin which sloughed away over the apex of the swelling.

4. A large infected haematoma developed under the right scapula which was repeatedly aspirated. It subsided without further haemorrhage after instillation of penicillin.

5. A rounded shadow 'like a cannon ball' appeared in the right middle lobe of the lungs. It was feared that this was a further abscess but fortunately it disappeared within 3 weeks.

6. At one stage ¼ gr. of morphine had been ordered p.r.n. to control severe pain in the stump. After one week the patient showed obvious evidence of addiction, which fortunately was controlled by substitution of pethidine and then A.P. codeine tablets by mouth.

Feeding was a problem in the early stages and several bottles of protein hydrolysate were administered intravenously to supplement the protein intake. The patient was encouraged to eat biltong, cheese and many of the various concentrated protein foods.

Finally, by November, all bleeding had ceased—13 weeks after the amputation—and from then on there was steady improvement with rapid gain in weight. Concurrently the bedsores healed and the stump became covered with granulation. A small 1-inch segment of femur protruded and this was excised under general anaesthetic without disturbing the surrounding granulations.

One more brisk haemorrhage occurred from the stump in the middle of December, and this was controlled by 50 c.c. of anti-haemophilic globulin. This substance had been urgently asked for in June 1953, but owing to import-permit difficulties it only arrived in November. We therefore were not able to use it during the crucial operative period and because of our limited use of this substance we are unable to form any opinion as to its efficiency in controlling bleeding in haemophilia.

Fig. 1

LABORATORY DATA

June 1952

Venous Blood Clotting Time (modified Lee-White): 60-90 minutes (normal: 5-10 minutes): Done on several different occasions.

Plasma Prothrombin Time: 12.4 seconds (normal: 11-13 seconds).

Plasma Recalcification Time: 540 seconds (normal: up to 150 seconds). The recalcification time was reduced to well within the normal range by adding an

equal volume of normal plasma. No coagulation inhibitory activity was shown by the patient's plasma in this test.

The abnormally decreased reactivity of the plasma to decreasing concentrations of human brain thromboplastin was typical of hemophilia (Aggeler *et al.*[5]).

Mixing the patient's plasma with that from a known hemophilic showed no mutually corrective effect.

The one-stage prothrombin consumption test performed according to the method of De Vries *et al.*[6] showed no significant conversion of prothrombin.

Numerous platelets which appeared morphologically normal were present in stained peripheral-blood smears. The clot showed excellent retraction and no excessive lysis.

January 1954.

Venous Blood Clotting Time (modified Lee-White): 50 minutes (glass tube).

Plasma Prothrombin Time: Normal.

The Prothrombin Consumption Test (one-stage) was grossly abnormal.

Plasma Recalcification Time: 400 seconds. This was reduced to normal by adding ½ volume of normal plasma, but no correction was found when plasma from a known hemiphilic was added.

The Thromboplastin Generation Test (Biggs and Douglas) showed a poor evolution of plasma thromboplastin.

Differential testing with globulin in the patient's plasma: the Christmas factor in the patient's serum is normal.

DISCUSSION

The reason for the failure to control the ever-increasing haemorrhage in this case, in spite of the many blood and plasma transfusions, is not known. The considerable area of sepsis and consequent toxic absorption probably played a major roll in the profuse bleeding; much of the haemorrhage may well have been secondary. As soon as the local sepsis had been controlled by 'bipp', the bleeding lessened remarkably and the wound began to heal. It is, perhaps, remarkable that this substance, used since the beginning of the century, accomplished what all our modern antibiotics were unable to do.

Transfusions were all given by the 'push in' method and at no time was a 'cut down' necessary. Slight bruising at the various vene-puncture sites was the only complication and the appearance of thrombosed veins was notably not one of our problems.

It is interesting to record that this child, weighing 40 lb., received a total of 42,500 c.c. (nearly 9 gallons) of blood and 5,500 c.c. (9 pints) of plasma in 4½ months. It is a credit to the South African Blood Transfusion Service in Johannesburg that all blood transfused underwent an incubated campatability test and that no reactions were noted, even though the patient's blood volume was replaced several times.

This case underwent 5 relatively major surgical procedures, including the amputation, and 14 general anaesthetics. There remain now the problems of rehabilitation and the fitting of a prosthesis to a most unsatisfactory stump, which has 3½ inches of femoral shaft with a fixed scar.

SUMMARY

1. Some cases from the literature of surgery in haemophilia are discussed.

2. An account of a case of high thigh amputation in a 10-year-old haemophilia is given, with some of the problems and complications that arose.

Thanks are due to Mr. R. L. Almond for permission to publish the case, and our sincere appreciation of the constant co-operation and efficiency of the South African Blood Transfusion Service in Johannesburg. The laboratory tests in 1952 were performed by Dr. P. Barkham and those in 1954 by Dr. H. B. Stein and Miss O. Abrahams of the Department of Clinical Pathology, University of Witwatersrand. Dr. Barkham supplied the references 5, 6 and 7.

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PANCREATITIS IN CHILDREN

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Acute pancreatitis in children is usually a mild disease, but it may, though rarely, be of severe degree and resemble the more common acute haemorrhagic pancreatitis of adults. On account of its rarity it is thought the following case is worthy of record.

CASE REPORT

A female child, aged 3 years, was admitted to Oldchurch Hospital, Essex, England, with a history of abdominal pain of 24 hours' duration. The pain, of a generalized nature, occurred in spasms lasting about ½ hour and then subsiding. She had been vomiting persistently since the onset of the pain. Her bowels had not been

opened for 2 days. She had had previous similar episodes, accompanied by vomiting, and the parents were of the opinion that these were of the same type as the present illness. In the previous month she had had 2 such attacks. There had been no history of mumps in the family or contact with it, nor was there any history of facial swelling.

On examination the temperature was 100.4°F, the tongue was furred and there was a foetor oris. Neck—no abnormality.

Abdomen: There was marked epigastric tenderness and it was thought there was an underlying mass, which, however, was ill-defined. There was no distension and bowel sounds were present. Rectal examination revealed faeces but no blood. Straight X-ray of the abdomen showed no abnormalities.

A definite *diagnosis* was not made, but in view of the recurrent attacks of pain and the presence of this ill-defined mass it was thought that an intussusception could not definitely be ruled out, although there were many points against it. However, there was no alternative diagnosis and it was decided to carry out a laparotomy.

Laparotomy: Right paramedian incision with the mid-point at the umbilicus.

There was a large quantity of blood-stained peritoneal fluid. It was immediately obvious that there were small pale areas of fat necrosis scattered over the greater omentum. The pancreas was palpably enlarged. The lesser sac was inspected and showed more marked areas of fat necrosis, and the pancreas itself was markedly haemorrhagic. The stomach, duodenum, bowel and gall bladder were all normal.

The blood-stained fluid was aspirated, and the abdomen closed in layers with interrupted nylon suture of the rectus sheath.

Post-operative course: She was given chloromycetin palmitate post-operatively, 1 drm. 6-hourly. Her immediate post-operative course was satisfactory, and the wound healed well. She complained 2½ weeks after the operation of abdominal pain in the region of the wound, and there was vomiting. Examination revealed no obvious abnormality, and she quickly settled down, being quite well the next day. However, 4 days later she had a similar attack, but again no obvious abnormality was found on examination. This attack also quickly subsided, and she was eventually discharged 5 weeks after admission.

When the patient was seen in Out-Patients' Department 3 weeks after discharge her mother stated that she still suffered from recurrent abdominal pain occurring 2 or 3 times a week and lasting approximately an hour.

The following are the results of serial biochemical studies (1954):

		*Serum Amylase**	*Blood Sugar mg. %*
January	2 †	1200	125
February	12	800	88
,,	26	100	88
March	9	1300	83
,,	23	200	110

*Somogyi units/100 cc. Normal 60-180.
†1st. post-operative day.

		Urinary Diastase‡
February	3	17,200
March	12	160

‡Wohlgemuth units/24-hour specimen of urine.

White blood count, 2 January, 14,700 per c.mm. with 67% polymorphs.

COMMENT

Acute non-haemorrhagic pancreatitis is well known in children following the acute specific fevers, mainly mumps, but even these cases are only occasional and usually mild. Harries and Mitman [1] quote the incidence in the order of 13 cases of pancreatitis in a series of 252 cases of mumps, and spontaneous recovery is here the rule, although diabetes occasionally follows.

Acute haemorrhagic pancreatitis, however, is so rare that Dobbs [2] in an extensive search of the literature was only able to find 14 other cases under 14 years, to which he added one of his own.

As far as the signs and symptoms go these occurring in the adult would raise a definite possibility of a diagnosis of acute pancreatitis; in fact a tumour has been felt in some of the reported cases, and in the present case there was an indefinite mass palpable. Should the diagnosis be considered it can be confirmed by measuring the serum amylase.

Aetiology. Dobbs discusses the role of trauma, ascaris infestation, and cholelithiasis, and in most cases there was no obvious cause found. Similarly in the present case there is no indication of a possible aetiological factor.

Treatment. Where the condition is diagnosed definitely, probably conservative treatment would be adequate; the only points in favour of operation being that at operation the pancreatic ferments and blood-stained fluid could be aspirated, and also possibly drainage of the lesser sac may diminish the incidence of cyst development. However, in acute pancreatitis of adults, where the diagnosis is sometimes not certain, laparotomy is usually carried out for fear one might be dealing with some condition demanding surgery; and such is the case in children. Barrington-Ward [3] advises drainage of the lesser sac, and Moncrieff [4] states that unless surgical intervention is taken a fatal outcome is certain.

It would seem, however, that this condition, if the diagnosis is confirmed by the serum amylase, is best treated conservatively, for the aspiration of the pancreatic ferments and blood-stained fluid does not counterbalance the risk of laparotomy in a child, with the special dangers peculiar to pancreatitis, namely burst abdomen.

The management of the present case, with its recurrent attacks of pain, constitutes a problem. At present the attacks are not very severe or long lasting; but should they increase in severity or duration they will require treatment.

Lately attempts have been made to interrupt the afferent pathways surgically, by vagus section, by splanchnic section, and by sympathectomy, and medically by hexamethonium bromide.

Prognosis. In Dobbs' 15 quoted cases 8 died. He stated that the ultimate prognosis after surgery is uniformly good, and there was recovery in every case after hospital discharge. In this case this would not seem to be so, for the child was suffering from recurrent bouts of abdominal pain and vomiting, and moreover her serum amylase had risen to 1,300 units per 100 cc. shortly after discharge. It would seem therefore that this child's recovery is certainly not complete, and one wonder what the ultimate prognosis will be as regards her endocrine and exocrine secretions.

This child has now been suffering from intermittent attacks of abdominal pain, both before and after the acute episode, and this would seem to bear a close relation to the chronic relapsing pancreatitis of adults. This condition does not appear to have been investigated as a possible cause of recurrent abdominal pain in children; also it is said by some that in a child diabetic one can sometimes obtain a history of recurrent abdominal pain, which presumably have been due to attacks of pancreatitis.

In the investigation of relapsing pancreatitis as a cause of recurrent abdominal pain in children the main difficulty is due not only to the lack of reliable laboratory tests to confirm the diagnosis, but also to the large functional reserve of the pancreas, which may undergo pathological changes without reflecting them in these tests; also in chronic pancreatitis laboratory evidence may only be present at the times of exacerbation, and not in between. The tests are similar to those used in the study of fibrocystic disease, one of the features of which is gross pancreatic disturbance. These tests include measurements of enzymes in the serum, and in the duodenal juice at rest or after pancreatic stimulation by hormonal or nervous stimulation, either separately or together; and examination of the stools for evidence of incomplete digestion and also for enzymes.

More recently Shingleton [5] has described a clotting test depending on changes in the coagulability of the blood due to pancreatic disease, and this may prove to be a valuable laboratory aid.

It is important to establish the incidence of chronic relapsing pancreatitis in children both for diagnostic and prognostic reasons. Firstly recurrent abdominal pain in children is a very difficult problem, and a proportion of these cases come to laparotomy when a normal-looking appendix is removed; could it be demonstrated; that the condition was of pancreatic origin an unnecessary operation could be avoided. Secondly diabetes mellitus is known to occur in children in post-mumps pancreatitis, and various authors quote the incidence of diabetes after acute pancreatitis as being in the order of 2-3%. Also in chronic relapsing pancreatitis in adults changes in the sugar-tolerance curves occur. Therefore, in a case known to be suffering from chronic pancreatitis urine examinations for glycosuria at regular intervals would enable one to detect the earliest onset of diabetes and to treat such a condition at its inception.

Finally, the diagnosis of chronic relapsing pancreatitis must be based on the history of recurrent abdominal pain accompanied by demonstrable changes in the internal or external secretion of the pancreas. It is suggested that these investigations be carried out in children with obscure abdominal pain, in order to establish whether the present case of recurrent abdominal pain due to pancreatitis is an exception or whether the condition is commoner than suspected.

SUMMARY

1. A case of acute haemorrhagic pancreatitis in a child of three years is reported.

2. This is very rare, 15 cases only being reported in the literature.

3. Comment is made on the treatment and prognosis, and the possible incidence of recurrent pancreatitis as a cause of abdominal pain in childhood is discussed.

I wish to thank Mr. E. B. Whittingham, F.R.C.S., for his permission to publish this case.

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HEALTH AND INSECTICIDES

At a General Meeting of the Southern Transvaal Branch in Johannesburg on 16 March 1954 a symposium was held in which the many problems arising out of the use of modern insecticides were presented and discussed. Valuable information was made available by the various contributors; in this report a summary is given of some of the main points. Much of the information is indeed not new to those who have been closely associated with the distribution and use of the various toxic agents. The facts should, however, be made known to as wide a public as possible.

Two classes of modern insecticides which are important are (1) halogenated hydrocarbons e.g. DDT, BHC (benzene hexachloride), chlordane, toxaphene, aldrin, dieldrin, and (2) organophosphorus compounds e.g. parathion ('thiophos'), HETP, TEPP, malathion, diazinon. In a paper dealing fully with hazards and preventive measures J. RITCHIE pointed out that nearly all modern insecticides are toxic to warm-blooded animals, but this does not mean they cannot be safely used with due precautions. Manufacturers have in general provided adequate information about their products, methods of use and protective equipment.

Both types of insecticides can enter the body by breathing, swallowing, or through the skin. Accidents occur from ignorance, bravado or contempt. Respiratory protection is very important, since the vapours, aerosols and dusts pass quickly into the blood through the lungs. Suitable respirators must be worn and the filters changed at adequate intervals; under severe conditions a full face mask should be worn, and should be comfortable if to be worn effectively. Goggles are otherwise worn for protection of the eyes, and also rubber (not synthetic) gloves, rubber garments for the head and body and rubber boots. The rubber clothing should not be made of synthetic rubber. It should be washed immediately after a spraying session, preferably with running water, and socks and underclothing should be changed each day. A wash and shower or bath should follow working with insecticides.

Workers must be trained and should receive lectures on the toxicity of the compounds and the uses of protective equipment. Strict discipline by foremen and supervisors is necessary for young foolhardy individuals; experience has shown that it is chiefly carelessness that leads to injury to workers.

Additional measures mentioned by Ritchie are routine medical examinations at weekly intervals, supervision of first-aid and prophylactic measures, and limitation of the periods of work. The local doctor should be warned about the possibility of patients coming with symptoms of insecticidal poisoning and should be provided with information on the pharmacology of the toxic agents in use. The speaker stressed the importance of correct labelling of containers of poisonous insecticides, and the duty of parents and supervisors to keep products out of the way. The regulations governing labelling in the U.S.A. are more specific and demand more detail than the requirements in South Africa.

The contamination or alleged contamination of foodstuffs by insecticides was also considered by Ritchie, who points out that in South Africa no legislation exists to control contamination of foods. Should legislation be passed the burden of responsibility will largely fall on the processers of food, who will have to know what materials were used on the crop, and what amount persists when the crop is harvested. Farmers and market gardeners have their responsibilities and should never spray fruit or vegetables just before delivery; an interval of at least 3 weeks should elapse

between spraying and harvesting. Sprayed products should also be washed before marketing. There will obviously always be hazards when poisonous chemicals are used, but with education and instruction and collaboration accidents can be avoided.

The types of common insecticides and common solvents were considered by G. YPSILANTI. He pointed out that the halogenated hydrocarbons have residual action; they remain lethal to insects for a long time, whereas the organic phosphorus insecticides are usually far more rapidly converted into innocuous substances. He referred also to the petroleum derivatives which have been in use for a long time, and to nicotine and the pyrethrins. The arsenical compounds, which have lost their leading position, are nevertheless still widely used in insect control. The speaker drew attention to the requirements of the solvent for insecticides. The most commonly used is kerosene (paraffin). Dusts, emulsions, and miscible oils all present technical problems. The task of formulating insecticides and their use is complex. In the field they are exposed to rain, sunshine, and temperature variations.

Cases of poisoning that have occurred in Johannesburg and the surrounding area were discussed by F. A. DONNOLLY, deputy medical officer of health, Johannesburg. There was always the difficulty of determining whether features of poisoning are due to the insecticide or to its solvent. After considering various poisons, including those used by the City Health Department, the speaker referred to the regulations declaring that poisoning from insecticides has been a notifiable disease throughout the Union since 31 August 1951. He was in no doubt that the few notifications made do not reflect the true position, and that steps should be taken to make the notification more effective.

The signs, symptoms, pathology and treatment relating to poisoning with certain insecticides were considered in some detail by J. B. LURIE, who confined his remarks to the chlorinated group, of which DDT and BHC, e.g. 'lindane', are well known and widely used and to the organic phosphorus compound parathion. The toxic effects of the first group in insects, animals and man were presented. The treatment of poisoning with DDT and BHC in man includes emptying of the stomach and the injection of calcium gluconate; castor oil, morphine, and adrenalin should not be administered.

The organic phosphorus insecticides inhibit cholinesterase, thus allowing acetylcholine to act persistently. By estimating serum-cholinesterase levels it can be discovered whether a worker shows a serious decrease of cholinesterase; he should be removed and placed under observation. The signs and symptoms of poisoning are due to the muscarinic and nicotinic actions of acetylcholine. Thus in the treatment (e.g. parathion poisoning) the specific antidote is atropine, which must be administered in big doses; but atropine will only antagonise the muscarine-like effects, not the nicotinic effects, of poisoning, and the muscle paralysis produced by excess of acetylcholine necessitates artificial respiration. The worker should avoid further contact with parathion for at least 6 weeks, during which time serum cholinesterase levels should be checked.

The necessity for the use of poisonous chemicals in the growing of fruit and other produce was dealt with by B. K. PETTY. He considered the agricultural aspects and expressed the opinion that the use of poisons was absolutely essential with most crops. Many fruits and vegetables and other staple crops could not be produced economically and in quantity without chemical protection from insects, plant diseases and other pests. Distinction must be made between the dangers associated with residues and food contamination, and the operational hazards associated with manufacturing or application processes. After considering problems associated with the use and misuse of insecticides, the speaker emphasized the responsibilities of all those concerned with insecticides; the legislators, the manufacturers, and perhaps most of all those who apply and utilize the materials. Education is important but not enough. Accidents involve labourers who cannot read; training and supervision of these people is the responsibility of employer and foreman.

Remarks on the use of insecticides in their application to animals were made by R. DU TOIT. Amongst other difficulties he mentioned a serious one from the farmer's point of view, namely the diversity of preparations under all sorts of brand-names. The layman cannot always appreciate the full significance of highly complex chemical names and a few words on the label. Rather tragic incidents are frequently brought to the notice of the authorities. Legislation alone cannot guard against the risks nor is prohibition of certain dangerous substances practicable. The only solution is education of the public, and, in the nature of things, this must be a slow process.

The determination of parathion and p-nitrophenol in post-mortem tissues was presented by B. W. MARLOTH, who gave details of the procedure used in the laboratory. With the introduction of each new pesticide the forensic and toxicological analytical chemist must be prepared for the investigation of cases of poisoning.

ABSTRACTS : UITTREKSELS

G. H. J. Teichler, Derdepoort Mission Hospital, via Zeerust, Tvl. (1954): *Observations on the Bark of Albizzia Anthelmintica as a Remedy for Tapeworm.* Z. Tropenmed. Parasit., **5**, 131.

The bark of Albizzia anthelmintica, a South African tree, is recommended for tapeworm treatment. Satisfying experiences are reported, also in persons of weakened constitution. The original bark should be used in powdered form and not as a decoction or extract. The powder is taken in doses of several teaspoons daily for 3 to 4 days leading to the expulsion of the tapeworm without purges or restriction of diet.

Finland, M., *et al.* (1954): *Clinical and Laboratory Observations of a New Antibiotic Tetracycline.* J. Amer. Med. Assoc., **154**, 561.

Preliminary clinical studies on 179 patients with the new antibiotic tetracycline indicate that it is effective in pneumonia, urinary-tract infections and other conditions of varying etiology, and that its antimicrobial 'spectrum' closely resembles that of the broad-range antibiotics oxytetracycline (terramycin) and chlortetracycline (aureomycin). The drug, which has an alternative name Tetracyn, was discovered by scientists of Chas. Pfizer & Co., Inc., in co-operation with workers of Harvard University. It was chemically described in 1952[1] when it was stated that its basic chemical skeleton was common also to terramycin and aureomycin. The limited experience available shows that Tetracyn possesses a high degree of *in vitro* stability, and that its clinical use is accompanied by satisfactory blood levels and a low incidence of gastro-intestinal side-effects.

1. J. Amer. Chem. Soc., 5 October 1952.

Charles Eberhart *et al* (1953): *Treatment of Urethritis in Women. A New Etiological Concept.* Sth. Med. J., **46**, 937.

It is suggested that urethritis and cystitis in the female is commonly caused by an infection of Skene's glands, particularly when the ducts of these glands are longer than normal.

The treatment recommended is that of amputating the distal centimetre of the urethra. It is noted that on sectioning the glands and their ducts the pathological findings are not impressive as compared with the symptoms produced. (This condition appears to be analagous to the urethritis in the male caused from infection of Cowper's glands. The minimal pathological findings on sectioning the glands suggest that the urethritis is caused by a toxin rather than by an acute infection.)

F. W. F. P.

WHAT'S WRONG WITH US?

PRESIDENTIAL ADDRESS, NATAL COASTAL BRANCH

R. ELSDON-DEW, M.D., F.R.S. S.AF.

Presidential Addresses can, as a rule, be divided into two main groups: those which are paeans of praise for the past and those which are homilies for the future. This one falls into the latter category.

Dr. R. Elsdon-Dew

The past has done well, but this is due less to the main body of the profession than to the enthusiasm of the few. That there have been failures in the past is evident and for this we must blame not the enthusiasm of the few, but the lack of co-operation of the main body of the profession. Medical men are individualists which is good and proper; but we must remember that if we do not hang together we shall probably hang apart. Medical men are not, as a rule, good business men or politicians, and we are dealing with hard-headed business men, who know all the tricks and do not hesitate to use them against one another; they will certainly use them against us. They are continuously on the look-out for chinks in the armour of their competitors and they know full well that our armour is as full of chinks as a sieve.

MEDICAL AID SOCIETIES

There are many of us, well aware of the agreements with Medical Aid Societies, who fail the profession and the Association by granting services to Medical Aid Societies no longer approved by the Medical Association. It is common talk that certain non-approved Medical Aid Societies have said, 'We should worry if the Medical Association does not approve us! There are plenty of doctors who *will* give us exactly the same service—and on our own terms!' In other professions, such members would be penalized in some way; in most trades, they would be called 'scabs' and 'blacklegs'. But, is it their fault altogether? If 'A' knows that if 'B' doesn't do it, 'C' certainly will, then you can understand it when on a question of 'bread and butter' 'A' too falls. So it becomes a scramble, to the detriment of the profession and to the benefit, in the end, of the business men behind the Medical Aid Societies.

Medical Aid Societies help the very large proportion of the population who without them would be unable to afford private medical attention, and they help the profession because without them these people would either go without treatment or get free treatment at the hospitals. By taking work off the public hospitals they presumably reduce taxation. There is still another man whom they help. Most Medical Aid Societies are based on a business or industry, and the man who benefits most and, in general, for the least effort is the employer. He pays his employees a wage at which they cannot afford ordinary medical fees. In other words, he pays them less than a living wage. He gains by the fact that when his employees become ill they can seek medical aid without fear and without delay, and consequently the general state of health amongst his employees is higher than if no Medical Aid Societies existed. Certain employers realize this and provide medical services for their employees. There are some of course who provide a complete medical service; for example, the Gold Mines, who know quite well that were they to disregard the health of their employees the industry would very soon go under. Further, the employers benefit by the fact that the very existence of a Medical Aid Society in a business is an inducement for people to become their employees; one sees advertisements in every paper along these lines.

So it appears there are 3 main bodies who gain from the existence of a Medical Aid Society: the ordinary lower income group, the medical profession, and, by no means least, the employer of labour. Now all who gain should contribute fairly in proportion to what they gain. The employee pays his subscriptions. The doctor assists by giving a preferential tariff—a tariff which we all know is only just economical for the doctor. Some employers, appreciative of the benefit they receive, subsidize the Medical Aid Societies liberally, but they are the exceptions. In general, employers do not pay into the Medical Aid Societies anything like the value of what they receive. I would like to see it a rule that the employers' contribution to Medical Aid Societies should be at least as great as that made by his employees, if not greater: the employees would then be better off because their contributions would be less, the profession would not constantly have to fight for its mite out of the kitty, and the employers would actually have a better appreciation of the value of the Medical Aid Societies and the work done for them by the profession.

May I remind you that the employers are business men and are not going to be easily forced to pay out some of their dividends. I do feel, though, that the Medical Aid Society system should be reviewed and these points taken into consideration; and that we, as the third party in the 'tripartheid' agreement, should fight the first party, the employers, on behalf of the second party, the employees. We must remember that the employers have found that it pays them hands down to have efficient men running their Medical Aid Societies, because these men in the long run will save them money. And that is the one language they understand.

An intriguing idea: Why if the doctors give a discount to the Medical Aid Society should not the employer who benefits, give a discount to the doctor? Perhaps we shall get a discount from the Banks on our overdrafts!

GOVERNMENT BODIES

There are many other bodies with whom we must act as a united profession. We have to come to a decision as to the rates and fees relating to *Workman's Compensation Act* cases. The present rates of remuneration are in no way commensurate with the work we have to do. The Act is not a charitable concern and we should have our just dues. The fund which is theoretically being held against a major disaster is reaching major proportions, and it is not right that we as a profession should be called on to pay for this insurance.

Further there are our relationships with *Government bodies* such as the *Province and the Union Health Department*. It is a pity that Health as such should be divided up into several water-tight compartments. I cannot think that it was the intention of the original legislators at the time of Union to separate Public Health and Hospitals. Nevertheless, we have with us 3 public bodies responsible for various aspects of health: the Department of Health responsible for Public Health on a wide scale; the Provincial bodies responsible for hospitals, but not for those for mental diseases or infectious diseases (which include tuberculosis, venereal disease and leprosy) and the Municipalities who, in addition to their other Public Health duties, have to cope with the hospitalization of infectious diseases in their areas. Luckily this splitting of responsibility for hospitals is breaking down, partly as a result of representations made by the medical profession.

We as a profession must watch these developments very closely, because the desire to unify the health services carries a very real danger that we may be swept into the box with the remainder. I personally do not feel that this would be a good thing. We are individualists, and individualism is very important because it makes for progress in the art of medicine and would probably be stifled if we came further under the control of the bureaucrat. Some consolidation of medical services is desirable, but it should not be at too high a level. We in Natal have been fortunate in that there has been very close liaison between the medical profession and the Provincial authorities, and consequently Natal has avoided the pitfalls into which other Provinces have fallen on the subject of free hospitalization. We must present to the Province a unified view so that we may retain their confidence.

The so-called *honorary system* has worked very well. It enables the medical man to do his duty to the public and at the same time,

by having access to large numbers of cases, to enlarge his experience. A large extension of the honorary system is desirable. At the moment, the honorary staffs of hospitals are too small; more provision should be made for general practitioners to gain experience in hospital work and thus to fit themselves the better for their private work. The advent of the Natal University will probably change the picture considerably, and it cannot but be for the good. Though we may quibble about the academic approach to medicine there is no doubt that it gives a stimulus to medical thought and particularly to research.

COOPERATION WITHIN THE PROFESSION

The medical profession is perhaps the least co-operative of the professions. It is often stated that we are 'the strongest trade union in the world.' That is not true. We do not act in any way like a trade union. We do not have compulsory membership. We do not go on strike to the detriment of our clients. We do not expel 'scabs'—those who do not fall in line with decisions of the majority. We do not demand preferential rates from anybody—though we might. Let us take these in order and think about them.

Compulsory membership. We should govern ourselves like the legal profession. The very existence of a lay body such as the Medical Council controlling us and our actions is a form of insult which only the medical profession would put up with. The legal profession control their own affairs through their own machinery, not only to their own benefit, but also to the benefit of their clients, whose interests are probably protected in a better way than a body like our Medical Council can do. Medical men have behaved in ways of which we do not approve, but of which the Medical Council can take no cognizance. That the Council have not done too badly is mainly due to the fact that there are some medical men on it.

Were it possible to merge the Medical Association and the Medical Council, making membership of the Medical Association compulsory to all medical practitioners, then we should be in the same position as the legal profession. We could discipline our own members very much better than can be done at the moment, and we could protect the public quite as well as the present body. We could also protect ourselves from those who wish to do us harm both outside and inside of our own profession. We should probably not strike any more than we do now. There would be no necessity. We should certainly hold a stronger hand as regards Benefit Societies and the like. We might even build ourselves into a co-operative body strong enough to deal with the business man in his own field. Were it united the medical profession would be a strong commercial and political body. Let us envisage the possibility of a medical co-operative society and take one item as an example:

If the medical profession were to run their own garage organization, there are enough of us to be able to gain a considerable reduction in our motoring costs—costs which form a major item in our expenditure. We could have all our services done at our own rates. We could get our petrol at wholesale rates. We could even purchase our cars at very beneficial rates.

There are many other items and services we buy which I am sure we could get considerably cheaper were we to act in concert. The dentists have already started the Professional Provident Society which provides insurance against sickness at rates and under conditions unobtainable anywhere else. It is controlled by the professional men themselves. We could greatly extend this kind of thing to our advantage.

A HIGH ASSOCIATION SUBSCRIPTION PROPOSED

Under its present organization, the Medical Association hasn't got a hope of doing anything of this kind. It is far too hard up. It ought to be a wealthy organisation. It would be no use making a paltry increase in the subscription. A hefty increase is necessary—something of the order, say, of 25 guineas a year. This might be impossible for most young practitioners, but perhaps a sliding scale could be arranged. Any proposal on these lines would require the wholehearted support of the medical profession; but I am certain that the concept would result in far-reaching benefits to the profession.

DIVISIONS IN THE ASSOCIATION

An unpleasant development in the last few years has been the division of the Association into sections whose interests are supposed to be different. The formation of groups is in itself not a bad thing; to a certain extent it was thrust upon us by circumstances. But when the division is used for action by one group against another, then of course it is poisonous. Even the suggestion of that is dangerous.

The first great division and the one which has caused the most trouble has been the division into specialist and general practitioner. Initially, a specialist register seemed very necessary. Before it came into existence there was a state of near chaos. A practitioner would go overseas for 3 or 4 months, and on returning set himself up as a specialist in something or other, and charge what fees he liked. The public was gullible enough to accept these people at their own rating. Neither the public nor the genuine specialist was protected, and it was the Medical Association themselves who suggested a specialist register. At that time there were but few practitioners really competent to act as specialists, and consequently there were great opportunities for unscrupulous people.

So it arose that legislation was felt to be necessary. We know now that it was probably unnecessary, because once the country got an adequate supply of doctors the natural law of supply and demand would have evened things up. This country suffers from too many control boards. The natural law of supply and demand is generally very much better than any artificial control that can be devised.

Once a Specialist Register was formed, standards were raised until some of them have become ridiculous. Too much stress has been laid on the academic side of specialism. Aspirants are required to follow prescribed courses and to spend a given time in a teaching institution. All this does not make the true specialist.

By specialist we mean the practitioner who has confined himself to a particular subject and so has more knowledge of that subject than his fellows; so that on the one hand he can give better service in this subject and on the other hand will have fewer patients; because of this he is worthy of greater remuneration per patient. At the outset, a mistake was made in not distinguishing between specialists and consultants. Under the old conditions supply and demand enabled the consultant to survive. As it is, the specialist finds it difficult—as difficult as the ordinary practitioner finds it—and, consequently, the two come into conflict. The conflict has arisen because there are too many specialists and, equally, too many general practitioners. Too many medical men fighting for the same 'plums'. It has been argued both ways that this country has too many doctors, and too few doctors. Both are true. We have too many doctors in the wrong place and too few doctors in the right place. Be that as it may, the conflict is here. The problem is a grave one because of the schism which it is creating in the profession. What are we going to do about it? The right way is not by enlarging that schism, and I must say I did not like the lobbying which took place in the recent elections.

In making our choice we should choose the best men to represent the whole profession—not a particular speciality, and not even that widest of specialties, general practice. We cannot now throw the Specialist Register overboard as has been proposed. Were we to do so, there would be chaos for a considerable time—a chaos which would further lower the status of the profession, even now none too high. However, despite all this lobbying, the average medical man has enough intelligence not to be led by the nose. One wonders sometimes whether the schism between the different sections of the profession is not being fostered by those who have something to gain from division. There is an old adage, 'Divide and rule.'

THE ASSOCIATION

It is my firm conviction that 99 per cent of the medical profession are decent people who would not wish to take any unfair advantage of their colleagues or the public. They entered the profession with the highest ideals and they maintain those ideals, often in the face of considerable economic stress. When one suffers a wrong that affects one's bread and butter it is often hard to prevent indignation from overcoming loyalty. It is then we should hold together. There should be freer and more open discussion of our problems; not necessarily meetings on the differences between the specialists and the general practitioners, but rather a getting together under more sociable conditions. At the business meetings of the Association one can almost guarantee who will speak and what they will say, and that the ordinary chap will not speak at all. Perhaps these meetings have their place, but I think it would be far better if we could get together over a pint or a snack. I would like to see more social evenings in the profession. One would like to see Medical Clubs where, over a meal, at a cocktail party, after a game

of squash, or something of the sort, our problems would be talked over. In small cliques in the doctors' rooms at nursing homes or hospitals a lot of damage may be done because there is not a wide enough contact.

I think we could start this ball rolling by organizing social gatherings, which could also be made the medium of raising funds—say for the Benevolent Society. We should hold such gatherings frequently, which would help in binding the profession together. We are no longer the Association that we like to think ourselves; our biggest fault is that we do not know one another. If we knew one another really well, we should realize one another's good points—at the moment our attention seems to be focussed on one another's faults—we should find how many of our interests were in common and how many are the ways in which our co-operation would be to the benefit of us all; we should find stiles over which we could help our colleagues, or be helped over ourselves. Our numbers are too great for it to be easy to know one another, but have we made any attempt?

At one time the annual dinners of this Branch provided an opportunity, but in recent years they have been poorly attended. This may result from their formality, and I would suggest that informal social gatherings should be held much more often than once a year. The best way would probably be a permanent Club, with a restaurant, a bar and the usual amenities. We might not be able to afford such a Club on our own, but there has been for many years a move to form a Scientific and Technical Club in Durban on the lines of the one existing in Johannesburg, to which at one time the medical profession used to belong, though it has since broken away. I would like to see the medical profession taking a lead in the formation of such a club as they did in Johannesburg. Its value to medical practitioners would be enhanced by the opportunity it would afford them of meeting other scientific people.

I will leave you with the thought that in some way we must get to know our colleagues better and once again regain the camaraderie which was possible when we were a much smaller body. It is by this means that we shall get rid of our internal differences and be better able to face our enemies.

PASSING EVENTS : IN DIE VERBYGAAN

UNION DEPARTMENT OF HEALTH BULLETIN

Report for the 6 days ended 14 April

Plague and Smallpox: Nil.

Typhus Fever: Natal. One (1) Native case in the Empangeni district. Diagnosis based on clinical grounds only.

Epidemic Diseases in other Countries.

Plague: Nil.

Cholera in Chalna, Chittagong, Dacca (Pakistan); Calcutta (India).

Smallpox in Mogadiscio (Somalia); Basra (Iraq); Dacca, Karachi (Pakistan); Bombay, Calcutta, Cochin, Delhi, Kanpur, Madras, Nagapattinam (India); Bassein (Burma); Hanoi, Haiphong, Saigon-Cholon (Viet-Nam); Inchon, Pusan (Korea).

Typhus Fever in Bagdhad (Iraq).

MEDICAL PRESS UNION CONGRESS

A Congress of the International Medical Press Union will take place at Turin, Italy, on 30 May 1954 (one day). There will be 4 sessions for the discussion of the subjects on the programme. Membership free. Enquiries should be directed to the Congress Secretary (Dr. F. Gavosto), Corso Bramante 83, Torino, Italy.

S.A. MEDIESE KONGRES 21-26 JUNIE 1954 PORT ELIZABETH

Die aandag van lede word daarop gevestig dat, indien hulle van plan is om die Suid-Afrikaanse Mediese Kongres by te woon wat van 21 tot 26 Junie 1954 te Port Elizabeth gehou sal word, hulle die intensiekaartjies, wat onlangs aan hulle gestuur was, so gou moontlik moet voltooi en aan die Organiserende Sekretaris, Suid-Afrikaanse Mediese Kongress 1954, Posbus 1137, Port Elizabeth, terugstuur.

Dr. F. Krone, who for many years has practised as a Dermatologist at the African Life Buildings, St. George's Street, Cape Town, retired for health reasons at the end of April. His practice has been taken over by Dr. J. I. Lipschitz who will continue the practice at the same address.

Dr. Krone wishes to thank his colleagues who have supported him in the past.

Dr. F. Krone wat as Dermatoloog vir baie jare in Kaapstad te African Life-gebou, St. Georgestraat, gepraktiseer het, het om gesondheidsredes, einde April afgetree. Dr. J. I. Lipschitz neem sy praktyk oor en sal dit by dieselfde adres voortsit.

Dr. Krone bedank sy kollegas vir hul ondersteuning in die verlede.

Dr. and Mrs. J. Abelsohn of Cape Town sailed on the Athlone Castle on 7 May for an extended trip to England and the Continent.,

POST-GRADUATE COURSE IN SKINS, EAR, NOSE AND THROAT AND EYES

The Medical Graduates Association of the Witwatersrand University, Johannesburg is arranging a special course for the weekend 21-23 May. The fee for the course is £4 4s. including a dinner on the Saturday night for doctors on the course and the lecturers. There will also be a session on the Sunday morning at the Fever Hospital.

The course promises to be highly interesting and of extreme practical use. Applications close on 10 May.

BOOK REVIEWS : BOEKRESENSIES

YEAR BOOK OF DRUG THERAPY

The 1953-1954 *Year Book of Drug Therapy.* Edited by Harry Beckman, M.D. (Pp. 538. $6.00). Chicago: The Year Book Publishers Inc. 1954.

Contents: 1. Introduction. 2. Allergy. 3. Antibiotics and Sulfonamides. 4. Cardiovascular Diseases. 5. Dermatology. 6. Endocrinology. 7. Hematology. 8. Internal Medicine. 9. Neuropsychiatry. 10. Obstetrics and Gynecology. 11. Ophthalmology. 12. Otorhinolaryngology. 13. Pediatrics. 14. Surgery. 15. Venereology. Index.

This volume in the Year Book series provides once again useful abstracts of selected articles taken from certain journals received by the editorial staff between August 1952 and August 1953. Many of the abstracts are from journals that are ordinarily not easily available. The editorial comments, of which there are many, are especially valuable, and there could be more of them. Apart from their critical appraisal of an article or topic of investigation they often suggest problems for research by clinicians and others. Year after year we see drugs coming and going. There is no question that if more investigators would use the 'double blind' study of drugs, i.e. 'an extensive carefully controlled series in which neither doctor nor patient knows the nature of the medication being administered' there would be fewer drugs marketed and less confusion. There would be less tendency to forsake one drug for another, too often the forsaking of one name for another name.

Among newer drugs about which information is available are nalorphine (N-allylnormorphine) which is antagonistic to morphine, pethidine, methadone; diamox, a carbonic anhydrase inhibitor, used as a diuretic in congestive cardiac failure; ethylenediamine tetra-acetic acid (EDTA; sequestrene, versene) for e.g., lead

poisoning; newer penicillin preparations and other antibiotics, isoniazid ganglionic and adrenergic blocking agents on trial in hypertension; more about corticotrophin and cortisone, cyanocobalamin, phenylbutazone (butazolidin), and antimalarial agents. About 50 pages are devoted to articles dealing with the chemotherapy of tuberculosis. The list of contents at the top of this review indicates the wide range of subjects considered in this book.

Since this type of book covers essentially the main advances or work reported in one practiular year it is desirable to have the year books published in preceding years for a more complete series of abstracts on modern drugs. A useful and valuable account of drugs of practical clinical importance is then available for immediate reference.

N.S.

SPOT DIAGNOSIS

Spot Diagnosis. Volume I. Compiled by the editors of 'Medicine Illustrated'. (Pp. 128 with 102 illustrations. 7s. 6d.) London: Harvey & Blythe Ltd., 1954.

Contents: Preface. *Part One.* Spot Diagnosis. *Part Two.* Notes on Therapy.

It is the intention of the Editors of *Medicine Illustrated* to provide a booklet of 'Spot Diagnosis' that will 'assist the student and general practitioner to recall in a pleasurable manner, clinical details away from the bedside'. Their attempt to achieve this aim is by the reproduction of numerous half-tone photographs of disease appearances and X-rays, from which the reader is expected to foresee the description which is printed on the reverse side of each illustration.

Some of the reproductions are good, as for example the rodent ulcer on page 91, but a number suffer from poor photography, and others from the rather poor quality of the paper that has been selected by the publishers, and which does not permit of the best reproduction. The greatest disadvantage, for a book of this type, is that the pictures are in half-tone and not in colour; without colour, it is impossible to distinguish between many inflammatory swellings and tumours, and between types of cutaneous eruptions. At times, the authors have drawn special attention to certain features of an illustration, as in Case No. 21, page 31, in which they ask the reader to 'note the condition of the skin'; even with this hint, it is not possible to be certain that what the skin shows is not any more than the normal light and shade of a not very good photograph. The therapeutic notes in Section II, on peptic ulcer, mitral stenosis, tuberculosis, thyrotoxicosis, rheumatoid arthritis and the use of vitamin B12, are useful summaries.

The book is rather disappointing coming as it does from the Editors of that excellent journal *Medicine Illustrated*, and one hopes that the photographic reproduction of Volume II will be an improvement.

G.A.E.

ORTHOPTICS IN SQUINT

Lyle and Jackson's Practical Orthoptics in the Treatment of Squint. Revised by T. Keith Lyle, C.B.E., M.A., M.D., M.Chir., M.R.C.P., F.R.C.S. assisted by Marianne Walker, D.B.O.(T.) (Pp. 371 + xii with 195 figures. Fourth edition. 63s.) London: H. K. Lewis and Co., Ltd., 1953.

Contents: Preface. Historical Note. 1. Introduction. The Scope of Orthoptics—Types of Squint-Binocular Vision. 2. Aetiology of Strabismus. 3. Orthoptic Instruments and Their Use. 4. Grades of Binocular Vision. 5. Abnormal Retinal Correspondence. 6. Method of Examination. 7. Optical Treatment. 8. Occlusion. 9. Treatment of Convergent Strabismus in Order to Develop Binocular Vision. 10. Accommodative (Accommodational) Strabismus. 11. Divergent Strabismus. 12. Strabismus in Adults. 13. Principles of Operation. 14. Post-Operative Treatment. 15. Heterophoria. 16. Ocular Neurosis and Associated Anomalies of Binocular Vision. 17. Paralytic Strabismus (Acquired). 18. Paralytic Strabismus (Congenital). 19. Nystagmus. 20. Management and Layout of an Orthoptic Clinic. Glossary. Bibliography. Index.

The 4th edition of this work has been re-edited by Keith Lyle and Marianne Walker. Since the 1st edition was published in 1937 this book has gained an authoritative place as one of the standard works on orthoptics.

Originally designed as a text-book for students of orthoptics, it can be strongly recommended as one of the reference works for practising and student ophthalmologists confronted with problems of squint in its varied forms. The case-histories are most instructive.

The authors point out that whereas in the early days of orthoptics as now practised it was generally hoped that orthoptics alone would cure a large percentage of squints, experience has taught a new conception of the part the orthoptist plays in the treatment of squint.

Great stress is laid on the value of the diagnostic function of the orthoptist, who can, by careful measurements and observations of the behaviour of a squint, help the ophthalmologist to decide whether to operate, when to operate, and how much to aim at correcting.

In suitable cases pre- and post-operative orthoptic exercises, by re-educating binocular functions, increase the prospects of achieving a physiological cure after operation.

A simple but very important function of the orthoptist is the supervision of occlusion. This is a process which requires patience, persuasiveness, and gentle coercion of patient and parents alike, for all of which the ophthalmologist finds too little time. The principle is underlined that treatment should be commenced as soon as possible after a squint has developed.

Various chapters have been augmented, notably the chapter on Methods of Examination.

It is interesting to note that whereas in the former edition a table was given of the periods after various squint operations during which the eyes should be kept padded, in this edition no padding of the eyes after operation is regarded as essential, except after Recession and Resection, and then only for one or two days.

R.L.H.T.

YEAR BOOK OF GENERAL SURGERY

Year Book of General Surgery. 1953-54 Series. Edited by E. A. Graham, A.B., M.D. Section on Anesthesia edited by S. C. Cullen, M.D. (Pp. 590 with 150 figures. $6.00) Chicago: Year Book Publishers, Inc., 1954.

Contents: 1. Introduction. 2. General Topics. 3. Armamentarium. 4. Shock. 5. Water and Electrolytes. 6. Nutrition. 7. Chemotherapy. 8. Wounds, Wound Infections and Burns. 9. Neoplasms. 10. Face, Buccal Cavity and Pharynx. 11. The Thyroid and Parathyroid. 12. Breast. 13. The Mediastinum and Bony Thorax. 14. The Lungs and Thoracic Cavity. 15. The Heart and Arteries. 16. The Veins. 17. The Esophagus. 18. The Abdomen—General. 19. Hernia. 20. The Liver and Spleen. 21. The Stomach and Duodenum. 22. Biliary System. 23. The Pancreas. 24. The Small Intestine. 25. Appendicitis. 26. Colon and Rectum. 27. The Genitourinary System. 28. The Adrenal Glands. 29. The Lymphatic System. 30. The Extremities. *Anaesthesia.* 1. Narcotics. 2. Ventilation. 3. Inhalation Anesthesia. 4. Muscle Relaxants. 5. Spinal Analgesia. 6. Infiltration and Regional Anaelgesia. 7. Circulation. 8. Fluid and Electrolyte Balance. Miscellaneous.

This *Year Book* series is well known to all serious medical readers as an excellent review of the literature of the current year. The present work is a continuation of this series and maintains the usual standard of excellence. This series, including the present number, is essential to every practitioner of general surgery.

J.F.P.E.

OPHTHALMOLOGIC DIAGNOSIS

Ophthalmologic Diagnosis. By F. Herbert Haessler, M.D. (Pp. 387 + x. 151 illustrations. 61s. 6d.) London: Baillière, Tindall & Cox Limited. 1953.

Contents: 1. The General Survey of the Patient. 2. The Disturbances of Functions. 3. Manifestations of Abnormalities in the Adnexa. 4. The Anterior Segment. 5. Media and Fundus. 6. Functions. 7. Adnexa. 8. Anterior Segment. 9. Posterior Segment. Index.

This book is written in an unusual way. It is not an ordinary text-book of Ophthalmology. As the title indicates, it deals with diagnosis of diseases of the eye and its adnexa.

The first 5 chapters, as the author says, are 'offered as an example of diagnostic procedure that is based on an abbreviated list of manifestations', while the remaining 4 chapters are a series of essays covering the same ground again in a different way. This leads to a certain amount of repetition of subject-matter and diagrams.

The paragraphs on Headache and Pain are abbreviated in a manner that struck me as rather too curt. Acute Glaucoma and Panophthalmitis were the only examples given under the heading of Pain. Elsewhere in the book pain is of course mentioned as a symptom of various other conditions.

The diagrams are simple and demonstrate points clearly, but it is a pity that some of them are printed, for example, on the back of the page which bears the relevant text.

This is a very readable book and presents its facts in an interesting way. Medical students would profit by reading it in addition to but not in lieu of their systematic lectures or prescribed text-books. Medical practitioners wishing to revise their ideas on ophthalmology would find this a pleasant way of refreshing and amplifying their knowledge. For the ophthalmologist the book is not indispensible, but for the lecturer in Ophthalmology it shows how an easy and flowing style may be used in presenting a subject which to students is teeming with new and disjointed facts.

R.L.H.T.

CORRESPONDENCE : BRIEWERUBRIEK

THE TREATMENT OF HIRSUTIES IN THE FEMALE

To the Editor: Hirsutism is a distressing affliction, but modern treatment is neither so ineffective, nor so dangerous, as Dr. Schrire [1] supposes. It is, therefore, important that his unsubstantiated generalisations should be refuted.

In his opening remarks he asserts: 'Little real help can be offered', and he continues, 'The measures adopted are usually prescribed by the Cosmetician, and they entail epilation, wax packs, and eventually electrical epilation, which, of course, has it's dangers.'

As a Dermatologist routinely prescribing and practising electrical epilation (with a Birtcher Hyfrecator), I have to confess my ignorance of these dangers. Can Dr. Schrire, from his personal knowledge and experience, name any which occur when this apparatus is correctly used?

I contend, further, that this method, far from being of little value, offers a total and permanent cure, and is most effective in these very cases who have hair so profuse, that epilation by Dr. Schrire's method 'Becomes a burden and the treatment is stopped.'

Several eminent authorities [2, 3] have said that repeated mechanical removal of hair is followed by an inflammatory reaction in and around the follicles which, in time, produces sufficient sclerosis to cause the follicles to atrophy. It would, therefore, have been instructive had Dr. Schrire controlled his Oestrogen series with three groups, one using only Eucerine base, one using Eucerine base and epilating manually, and the third using only manual epilation. He would then have been better able to substantiate his claim that 'Epilation alone could never have produced the results achieved by Oestrogen cream.'

C. M. Ross
M.B., Ch.B., M.R.C.P., F.R.F.P.S.(G)

Transvalia-gebou
Sentraalstraat
Pretoria
27 April 1954

REFERENCES

1. Schrire, I. (1954): S. Afr. Med. J., 28, 313.
2. Sulzberger, M.B., and Wolf, J. (1952): Dermatology. Essentials of Diagnosis and Treatment. Chicago: Year Book Publishers.
3. Andrews, G. C. (1946): Diseases of the Skin. Philadelphia: W. B. Saunders Co.

FEES OF PART-TIME DISTRICT SURGEONS

To the Editor: Enclosed please find a copy of a letter received from the Hon., the Minister of Health, Dr. A. J. R. van Rhijn. This letter was received after a personal deputation interviewed the Minister and the Secretary for Health, regarding the proposed increasing of fees and allowances of part-time District Surgeons.

I would appreciate it very much if you could publish this letter in your next issue of the Medical Journal on behalf of my Society.

Thanking you.

P. G. J. Koornhof, M.B., Ch.B., D.P.H.
Secretary/Treasurer, District Surgeons Society.

P.O. Box 335
Bethlehem
O.F.S.
26 April 1954

Geagte dr. Koornhof,—Na aanleiding van die onderhoud wat 'n afvaardiging van u Vereniging, deur u gelei, op 9 Desember 1953 met my in Pretoria gehad het oor die moontlikheid van 'n vermeerdering van die salarisse, toelaes en sekere fooie wat aan deeltydse distriksgeneeshere betaal word, asook vir die betaling van gelde vir lykskouings, wens ek u mee te deel dat ek nou 'n geleentheid gehad het om op die hele saak in te gaan en u vertoë sorgvuldig te oorweeg.

Dit blyk dat dit distrikgeneeshere vrystaan om by die indiening van hul jaarverslae, individueel vertoë tot die Departement van Gesondheid te rig vir 'n verhoging van salaris indien hulle van mening is dat die besoldiging wat hulle ontvang, ontoereikend is. Ek vind dat die Staatsuitgawe ten opsigte van salarisse en medisynetoelaes oor 'n tydperk van ses jaar, te wete, 1945/46 tot 1951/52, van £111,567 tot £147,512 gestyg het en dat daar 'n algemene hersiening van distriksgeneeshere se salarisse in 1953 plaasgevind het, ten gevolge waarvan verhogings aan sowat die helfte van die distriksgeneeshere toegestaan is.

Dit spyt my dus dat ek nie in staat is om aan u Vereniging se versoek om 'n algemene salarisverhoging by wyse van 'n globale som aan te bring, te voldoen nie. Hierby wil ek egter terselfdertyd die versekering gee dat vertoë van individuele distriksgeneeshere vir 'n salarisverhoging deeglik deur my Departement ondersoek sal word by die voorlegging van volledige gegewens, gestaaf deur dagboek- of ander aantekenings of dokumentasie betreffende die omvang van Staatsmediese dienste wat verrig is en wat as grondslag dien by die hersiening van salarisse.

Dit is ongelukkig ook nie moontlik om aan u versoek dat distriksgeneeshere se medisynetoelaag met 100 persent verhoog word, te voldoen nie. Ek is weliswaar bewus van die steeds stygende pryse van medisyne, dog ek verneem dat my Departement distriksgeneeshere in daardie opsig tegemoet kom deur duur preparate wat deur hulle gekoop is vir die behandeling van pasiënte vir wie se mediese behandeling die Staat verantwoordelik is, te vervang in gevalle waar daar grondige redes vir die gebruik van sulke preparate bestaan. Die meeste distriksgeneeshere maak reeds van hierdie toegewing gebruik. Gevalle van misbruik van hierdie toegewing kom egter voor en dit is gevolglik my Departement se voorneme om eersdaags 'n lys van geneesmiddels wat onder bepaalde omstandighede vervang sal word op te stel. Ek verneem voorts dat 'n departementele omsendbrief onlangs uitgestuur is waarin distriksgeneeshere verwittig is dat voorskrifte vir medisyne ten opsigte van gevangenis- en polisiebeamptes, lede van die Staande Mag, en hulle gesinne, aan plaaslike aptekers uitgereik kan word om op Staatskoste opgemaak te word, en dat op plekke waar daar nie 'n aptekersaak bestaan nie, die betrokke distriksgeneeshere teen kosprys vir die medisyne en materiaal wat verskaf is, vergoed sal word.

Wat betref die reistoelae wat aan distriksgeneeshere betaal word, dien daar op gewys te word dat dit slegs 'n terugbetaling is van die koste om 'n motor in stand te hou. Volgens berekening van die Departement van Vervoer en die motorverenigings kom die gemiddelde koste om 'n motor in stand te hou, op minder as 1s. per myl te staan. Die reistoelae is bowendien nie aan inkomstebelasting onderhewig nie. Onder die omstandighede is dit nie moontlik om aan u vertoë vir 'n verhoging van die reistoelae tot 1s. 6d. per myl gevolg te gee nie. In hierdie verband wil ek graag wys op die verontrustende verskynsel dat die totale uitgawes ten opsigte van distriksgeneeshere se reistoelae van £94,544 in 1945/46 tot £204,359 in 1951/52 gestyg het. Daar word derhalwe 'n beroep op distriksgeneeshere gedoen om in samewerking met magistrate, onnodige ritte uit te skakel en hul werksaamhede so in te deel dat dit besparing van Staatsuitgawes in die hand werk.

Dit spyt my dat dit ook nie moontlik gevind is om 'n verhoging van die fooi vir bevallings en die betaling van 'n spesiale fooi vir lykskouings toe te staan nie. Wat die verhoging van operasiefooie betref, ondersoek my Departement tans, in oorleg met die ander betrokke Departemente, die moontlikheid van die daarstelling van 'n hersiene tarief.

Met agting,
Die uwe,
(Get.) A. J. R. van Rhijn
Minister van Gesondheid

Ministerie van Gesondheid
Kaapstad
13 Februarie 1954

The Medical Association of South Africa
Die Mediese Vereniging van Suid-Afrika

AGENTSKAP-AFDELING : AGENCY DEPARTMENT

KAAPSTAD : CAPE TOWN

Posbus 643, Telefoon 2-6177 : P.O. Box 643, Telephone 2-6177
Waalstraat 35 35 Wale Street

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(1539) Noord-Kaapland. Goedgevestigde praktyk met kontantinkomste vir die laaste boekjaar van £2,378. Premie £1,250, insluitende medisynes, instrumente en spreekkamermeubels. Spoorwegaanstelling. Woning en spreekkamers teen geringe huurgeld. Terme vir afbetaling ± £750 kontant, balans £20 p.m.
(1641) Transkei. Well-established practice. D.S. appointment approx. £1,000 p.a. Income over £300 net per month. Large 10-roomed house. Easy terms could be arranged.
(1574) Cape Province. Large seaport town. Partnership share offered for sale to gentile purchaser in best class consulting private practice. Gross receipts £7,000 p.a. Premium for goodwill £3,000. Afrikaans doctor could do very well.

OPHTHALMIC PRACTICE FOR SALE

(1325) Excellent practice with 2 appointments.

ASSISTENTE/PLAASVERVANGERS VERLANG
ASSISTANTS/LOCUMS REQUIRED

(1622) Noord-Kaapland. Assistent so spoedig moontlik. Voorlopig lang termyn, later moontlikheid van vennootskap. Salaris-£100 p.m. + vry petrol, olie en losies. (Kwoteer ook **1584**)

ROOMS AVAILABLE TO SHARE

(1618) (1422) (1579) in Cape Town. Available on temporary or permanent basis.

SPECIALIST PHYSICIAN

(895) Partnership share offered for sale. Details on application.

INSTRUMENTS FOR SALE

Full list on application.

PRACTICES FOR SALE

(1659) WINDHOEK. Full details on application.

* * *

JOHANNESBURG

Medical House, 5 Esselen Street. Telephone 44-9134-5, 44-0817
Mediese Huis, Esselenstraat 5. Telefone 44-9134-5, 44-0817

ASSISTANTS/LOCUMS REQUIRED

ASSISTENTE/PLAASVERVANGERS BENODIG

(540) Near Johannesburg. Locum for June and July. £3 3s. 0d. per day and all found.
(550) Eastern Tvl. Locum for July. No car necessary. £3 3s. 0d. and all found.
(552) Randse dorp. Plaasvervanger vir Julie. £3 3s. 0d. per dag, £10 p.m. kartoelae en alles vry.
(556) Reef town. Assistant required for Reef practice, mainly Non-European. Salary and allowances to be discussed.
(557) Southern Rhodesia. Locum for 7 weeks as from 20 May. Partnership practice. £3 3s. 0d. per day and all found and a car provided.
(561) Wes.-Tvl. Assistent benodig in vennootskap-praktyk. Salaris £100 p.m. plus vry petrol en olie.
(562) Johannesburg. Locum as from 26 June til 16 July. Salary and allowances to be discussed.
(565) Locum for June on Western Tvl. mine. Salary £3 3s. 0d. per day and car allowance. Single quarters.
(567) Wes-Tvl. Plaasvervanger vir Julie. Salaris £2 12s. 6d. per dag, alles vry en 'n kar word verskaf.
(568) O.V.S. Plaasvervanger vir Junie. Salaris £2 12s. 6d. per dag, alles vry en £10 p.m. kartoelae.
(569) Tvl. Assistant to start as soon as possible. View to partnership. Preferably single man.
(571) O.F.S. town 120 miles from Johannesburg. Locum required, view to assistantship, in partnership practice. Salary £100 p.m. and allowances to be discussed.
(572) Reef. Locum for July. 5-Day week. Salary £88 p.m.

ROOMS TO LET

Busy dentist in Eastern Suburbs, Johannesburg, is looking for young medical practitioner (Gentile) to rent modern flat next door to dentist's rooms. Good prospects for the right man. Phone 25-4351 between 6 and 7 p.m.

* * *

DURBAN

112 Medical Centre, Field Street. Telephone 2-4049

PRACTICE FOR SALE

(PD25) Durban. House and practice available, suitable for a surgeon. Details on application.

ASSISTANTS/LOCUMS REQUIRED

(LM7) Zululand. Locum from about 15 May for six weeks. £3 5s. per day, free board and lodging, and £10 per month car allowance.
(LM8) Natal. Locum required from 16 June to 18 July. £2 12s. 6d. per day, all found. Country practice, practically no night work. Drakensberg area.
(LM9) Natal South Coast. Locum required for July. £3 3s. per day, all found. Must have own car. General mixed country practice.

ASSISTANTS REQUIRED

(AM2) Assistant required for trial period. If suitable, partnership will be offered. General practice in select area approximately 20 miles from Durban.
(AM3) Assistant required in Transvaal hospital town. Scope for surgery and radiology. Must be bilingual and possess own car. £120 p.m. exclusive board and lodging. Commence June 1954. Excellent possibilities in well established practice.

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

VACANCY: MEDICAL STAFF

Applications are invited from registered Medical Practitioners for appointment for a period of 1 year to the post of Medical Practitioner, Grade A, on the staff of the Livingstone Hospital, Port Elizabeth, with salary at the rate of £500—600—660—720 per annum.

In addition to the rate of pay indicated a variable cost of living allowance at rates prescribed from time to time by the Administrator of the Province, is payable. (Current rates: Married men, £352 per annum. Others, £110 per annum.)

The privileges of free board, quarters and laundering are not attached to this post.

The conditions of service are prescribed by the Hospital Board Service Ordinance No. 19 of 1941 (Cape) and the regulations framed thereunder.

The duties of the incumbent of this post will be primarily those of Anaesthetist and experience in this work will be a recommendation.

Applications must be made on the prescribed form (Staff 23), which is obtainable from the Medical Superintendent of the Provincial Hospital, Gipson Road, Port Elizabeth, to whom applications must be addressed to reach his office not later than 12 June 1954.

J. H. McLean
Medical Superintendent

Port Elizabeth
21 April 1954 (14536)

Transvaalse Provinsiale Administrasie

VAKATURES BY PUBLIEKE HOSPITALE

Aansoeke word ingewag van kandidate met geskikte kwalifikasies vir die onderstaande poste by Publieke Hospitale in die Transvaal.

Aansceke moet gerig word aan die Geneeskundige Superintendent of Verantwoordelike Geneesheer van die betrokke hospitaal en moet volle besonderhede bevat aangaande die ouderdom, professionele, akademiese en taalkwalifikasies, ondervinding en huwelikstaat van die applikant en moet voorts 'n aanduiding bevat van die vroegste datum waarop diens aanvaar kan word. Afskrifte van onlangse getuigskrifte moet aangeheg word by aansoeke.

Lewenskostetoelae tans betaalbaar aan voltydse werknemers:

Salaris	*Lewenskostetoelae*	
	Getroud	*Ongetroud*
Oor £350	£352 p.j.	£110 p.j.

Van persone wat aangestel word, sal verwag word om bevredigende sertifikate in te dien, asook om hulle te onderwerp aan 'n geneeskundige ondersoek by die betrokke hospitaal.

Aansoekvorms is verkrygbaar van enige Transvaalse Publieke Hospitaal of die Provinsiale Sekretaris, Afdeling Hospitaaldienste, Posbus 2060, Pretoria.

Benewens jaarlikse salaris en lewenskostetoelae ontvang voltydse werknemers spoorwegkonsessie en word verlof toegestaan ooreenkomstig die hospitaalverlofregulasies.

Die sluitingsdatum van aansoeke vir die poste is 26 Mei 1954.

Pos.	*Hospitaal*	*Emolumente*	*Aanmerkings*
Verantwoordelike Geneesheer	Ermelo	£1,000 × 50—1,200	Geregistreerde Mediese Praktisyn. Mediese Administratiewe ondervinding 'n aanbeveling. Plus £180 per jaar huistoelae.
Deeltydse Spesialis Geneesheer	Meerhof naby Pretoria	£205 p.j. 1 sessie per week	Geregistreerde Mediese Praktisyn. Hoër graad in Medisyne 'n vereiste.
Radioloog	Klerksdorp	£1,800 p.j.	Gekwalifiseerde Radioloog. Moet diens doen by Klerksdorp-, Potchefstroom en Wolmaransstad-hospitaal.
Narkose-registrateur	Boksburg-Benoni	£620; £780; £820; £860	Geregistreerde Mediese Praktisyn. Hoër graad in narkose 'n aanbeveling.
Kliniese Assistent (Departement van Interne Geneeskunde)	Pietersburg	do.	Geregistreerde Mediese Praktisyn. Moet vir minstens twee jaar gekwalifiseerd wees.
Kliniese Assistent (Departement van Radiologie)	Pretoria	do.	do. Moet diens aanvaar 1 Junie 1954.
Kliniese Assistent	Vereeniging	do.	Geregistreerde Mediese Praktisyn. Moet vir minstens twee jaar gekwalifiseerd wees.
Ongevalle Beampte	Tara, Johannesburg	do.	Geregistreerde Mediese Praktisyn.
	Vereeniging	do.	do.
Senior Inwonende Mediese Beampte of Intern.	Nigel	£480. Plus losies en inwoning of 'n toelae van £120 p.j. ten opsigte van losies en inwoning £240. Plus losies en inwoning of 'n toelae van £120 p.j. ten opsigte van losies en inwoning	Geregistreerde Mediese Praktisyn —
Senior Inwonende Mediese Beampte	Barberton	£480. Plus losies en inwoning of 'n toelae van £120 p.j. ten opsigte van losies en inwoning	Geregistreerde Mediese Praktisyn.
	Edenvale, P.K. Raedene	£480. Plus losies en inwoning of 'n toelae van £120 p.j. ten opsigte van losies en inwoning	Geregistreerde Mediese Praktisyn.
	Klerksdorp	do.	do.
	Verre Oosrand P.K. New State Areas	do.	do.
	Witbank	do.	do.
Interns	Klerksdorp	£240. Plus losies en inwoning of 'n toelae van £120 p.j. ten opsigte van losies en inwoning	—
	Verre Oosrand P.K. New State Areas	do.	—
	Witbank	do.	—

(45365)

Municipality of Randfontein

NOTICE NO. 34 OF 1954

VACANCY: PART-TIME MEDICAL OFFICER OF HEALTH

Applications are hereby invited from qualified Medical Practitioners for the position of Part-time Medical Officer of Health.

Detailed particulars of the conditions and requirements attached to the post can be obtained from the undersigned.

Applications should be submitted on the Council's prescribed form which can be obtained from the undersigned and should reach the Town Clerk, Municipal Offices, Randfontein, not later than 12 noon on Friday, 28 May 1954.

Canvassing for appointment in the gift of the Council is strictly prohibited and any proof thereof will disqualify a candidate.

F. A. Meltzer
Town Clerk

Municipal Offices
Randfontein
20 April 1954

(948)

Natal Provincial Administration

VACANCIES : SENIOR MEDICAL OFFICERS

Applications are invited from registered Medical Practitioners for appointment to the following posts:

Addington Hospital.

(*a*) Outpatient Department.
(*b*) Casualty Department.
(*c*) Anaesthetic Department.
(*d*) Department of Surgery.
(*e*) Ear, Nose and Throat Department.
(*f*) General Duties.

King Edward VIII Hospital.

(*a*) Casualty Department.
(*b*) Surgery Department.
(*c*) Medical Outpatients.

Country Hospitals.

General Duties.

Salary scale £720-840x60-1,020 per annum, less £180 per annum deduction in respect of Board and Lodging if provided. Employment is in a permanent or temporary capacity, and services are terminable by the giving of three months' calendar notice in writing, on either side. A temporary cost of living allowance is payable at the following rates:

Single persons £100 per annum.
Married males £320 per annum.

Applications giving full details of experience should be addressed to the Director of Provincial Medical and Health Services, P.O. Box 20, Pietermaritzburg.

(8114)

Natalse Provinsiale Administrasie

VAKATURES: SENIOR MEDIESE BEAMPTES

Aansoeke om aanstelling in ondervermelde poste word van geregistreerde Mediese Praktisyns ingewag.

Addingtonhospitaal.

(*a*) Buitepasiënteafdeling.
(*b*) Ongevalle-afdeling.
(*c*) Narkose-afdeling.
(*d*) Snykunde-afdeling.
(*e*) Oor-neus-en-keelafdeling.
(*f*) Algemene pligte.

Koning Edward VIII-hospitaal.

(*a*) Ongevalle-afdeling.
(*b*) Snykunde-afdeling.
(*c*) Mediese Buitepasiënteafdeling.

Buitedistrikse Hospitale.

(*d*) Algemene Pligte.

Salarisskaal: £720-840x60-1,020 per jaar waarvan £180 per jaar afgetrek word as kos en inwoning verskaf word. Aanstellings geskied op 'n tydelike of permanente basis en dienste kan skriftelik met drie kalendermaande deur enigeen van die partye opgesê word. 'n Tydelike duurtetoeslag is betaalbaar as volg:

Aan getroude mans—£320 per jaar.
Aan ongetroude persone—£100 per jaar.

Aansoeke met volledige besonderhede insake vorige ondervinding en kwalifikasies moet gerig word aan die Direkteur van Provinsiale Mediese en Gesondheidsdienste, Posbus 20, Pietermaritzburg.

(8114)

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

HOSPITAL BOARD SERVICE: VACANCIES

1. Applications are invited for the following vacant posts:

Institution	*Post*	*Emoluments*	*Closing Date*	*Applications must be addressed to*
Frere Hospital, East London	Medical Practitioner, Grade A, (Anaesthetist)	£500-600-660-720 p.a.	21.5.54	The Medical Superintendent, Frere Hospital East London.
Kuruman Hospital, Kuruman	Medical Superintendent (Part-time)	£180 p.a. (fixed)	26.5.54	The Director of Hospital Services, P.O. Box 2060, Cape Town.

2. Conditions of service are prescribed in terms of Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

3. In addition to the scale of salary indicated a cost-of-living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees.

4. The successful candidates, if not already in the Hospital Board Service, will be required to submit satisfactory birth and health certificates.

5. Application must be made on the prescribed form (Staff 23) which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any provincial hospital or Secretary of any School Board in the Cape Province.

6. Candidates must state the earliest date on which they can assume duty.

(M127112)

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT

HOSPITAALRAADSDIENS: VAKATURES

1. Aansoeke word ingewag om die volgende vakante poste:

Inrigting	*Pos*	*Emolumente*	*Sluitingsdatum*	*Aansoeke moet gerig word aan*
Frere-hospitaal, Oos-Londen	Geneesheer, Graad A. (Narkotiseur)	£500-600-660-720 p.j.	21.5.54	Die Mediese Superintendent, Frere-hospitaal Oos-Londen.
Kuruman-hospitaal, Kuruman	Mediese Superintendent, (Deeltyds)	£180 p.j. (vasgestel)	26.5.54	Die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad.

2. Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaalraadsdiens nr. 19 van 1941, soos gewysig, en die regulasies wat daarkragtens opgestel is.

3. Benewens die salarisskaal soos aangedui is 'n duurtetoeslag betaalbaar aan voltydse beamptes en werknemers teen bedrae wat van tyd tot tyd deur die Administrateur vasgestel word.

4. Die geslaagde kandidate, indien nie reeds in die Hospitaalraadsdiens nie, moet bevredigende geboorte- en gesondheidsertifikate indien.

5. Aansoek moet gedoen word op die voorgeskrewe vorm (Staf 23) wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad, of by die Mediese Superintendent van enige provinsiale hospitaal of Sekretaris van enige Skoolraad in die Kaapprovinsie.

6. Kandidate moet die vroegste datum meld waarop hulle diens kan aanvaar.

(M127112)

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